National Defence
Défense nationale

B-GA-443-001/FP-001

1 WING UNIT STANDING OPERATING PROCEDURES

WARNING

Although not classified, this publication, or any part of it, may be exempt from disclosure to the public under the Access to Information Act. All elements of information contained herein must be closely scrutinized to ascertain whether or not the publication or any part of it may be released.

Issued on Authority of the Commander 1 CAD **1999-06-01**

Canada

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OPI: 1 Wing A7 Doctrine **CH 3 2001-02-01**

Canada

104-03165/

FOREWORD

AUTHORITY

1. This publication, B-GA-443-001/FP-001, *1 Wing Unit Standing Operating Procedures* (WUSOPs), is issued on the authority of the Commander 1 CAD. It is effective on receipt and replaces all former 1 Wing WUSOPs.

2. Suggestions for amendments should be forwarded to Headquarters 1 Wing, Attention: A7 Doctrine.

AIM

3. The aim of this publication is to improve interoperability amongst 1 Wing units, by establishing common standing operating procedures for aviation unit field operations.

SCOPE

4. This publication corresponds to the Army Unit Standing Operating Procedures Volume 1 (B-GL-332-001/FP-001) in both format and numbering convention. For those specific Land Force USOPs that do not apply to aviation ground operations, the corresponding reference in the WUSOPs is marked, "Not Applicable". WUSOPs were also developed in consultation with Squadron Field Standing Operating Procedures and reflect most of their content. It is structured in seven parts, one for each of the six combat functions and the last part for reports and returns formats.

5. This publication applies to both the commanders who will lead and employ 1 Wing Tactical Helicopter Squadrons, as well as the aircrew and support personnel who conduct tactical helicopter operations.

6. Promulgation of this publication does not negate the need for unit commanding officers to plan and employ their unit in the most effective manner, based on an assessment of the environment, theatre or tactical situation and the higher commander's direction.

TERMS AND DEFINITIONS

7. The terminology used in this publication is consistent with that of the B-GL-331-003/FP-001, *Army Vocabulary*, AAP-6 (U), *NATO Glossary of Terms and Definitions* and APP-9, *A Compendium of Allied Land Forces Messages* (Edition 1).

RECORD OF CHANGES

CH NO	Page Number(s)	Change Date	Date Entered	Signature
1	1-1 to 1-26, 1-C-1 to 1-C-6, 2-9 to 2-18, 2-A-1 to 2-A-2, 3-1 to 3-3, 4-1 to 4-5, 5-1 to 5-33, 6-1 to 6-11, 7-27 to 7-32	2000-03-15		
2	6-16	2000-04-07		
3	i to x, 1-A-1 to 1-A-4, 1-E-1, 2-8, 2-A-1 to 2-A-4, 5-1 to 5-7, 7-1 to 7-72, 7-B-1 to 7-B-4, A-1 to A-8	2001-02-01		
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PART 1

COMMAND

WUSOP 101 COMMANDER 1 WING'S INTENT

101.01 Introduction

1. Over many years, each 1 Wing Unit developed their own operating procedures for field use. While these procedures may have been relevant to their associated brigade, they may not have been procedures identical to those used by other squadrons and other brigades. The WUSOPs are intended to replace all squadron unit Field SOPs and to standardize USOPs throughout all 1 Wing Squadrons. The adoption of common operating procedures permits much better interoperability between 1 Wing units and supported land force units.

101.02 - 101.99 Not allocated.

WUSOP 102 SQUADRON ORGANIZATION

102.01 Squadron Organization, Siting and Layout

1. **Organization**. A doctrinal tactical helicopter squadron consists of 24 helicopters, integral maintenance, logistics, administrative support, and command and control elements. The squadron is able to move independently, and to have a limited self-defence capability within a deployed brigade or higher structure. In order to do this; it is organized into an HQ Flight and five flights (for OP SABRE) containing the following key personnel and equipment:

a. **HQ Flight**. This flight provides Command, Control and Communications to the squadron. The key personnel are the CO, the DCO and the SWO. Sections within the HQ Flight are Flight Safety, Training, Intelligence, Operations (Ops), Liaison Officer(s), Signals and Administration, which includes the Squadron Orderly Room (SOR). Also, Meteorology (Met) and Air Traffic Control (ATC) personnel are included, if integral to the squadron. The HQ vehicle allocation comprises a Command Post (CP), an Intelligence van, an SOR office van, and Signals and rover vehicles;

Note. For step-up procedures, see 104.01;

b. **UTTH Flight**. Each of the three UTTH Flights consists of the Flight Commander (Flt Comd), D/Flt Comd, Flt WO and assigned aircrew. Each flight is allocated eight CH 146s, a Flight CP, and rover and transport vehicles for all flight stores, including accommodation and essential aircraft equipment. If a flight deploys independently of the squadron, a maintenance/logistic section may be attached to the flight;

c. **Maintenance Flight**. Commanded by the Squadron Aircraft Maintenance Engineering Officer (SAMEO), the Maint Flt provides unit level maintenance for squadron aircraft. The Flight consists of a Flight Headquarters, a Maintenance Records (AMCRO) Section, an Aircraft Maintenance Organization (AMO), a Maintenance Support Officer (MSO) section, and an Employment Training Office (ETO) section. The AMO section may be affiliated with flying flights for deployment away from the squadron location. It is equipped with a Flight CP, a rover, Special Equipment Vehicles (SEVs), and utility transport vehicles; and

d. **Logistics Support Flight**. Commanded by the Logistics Officer (Log Sp Flt Comd), it consists of a flight headquarters, a Supply Section, a Food Services Section, a Transport Section, a Vehicle and Ground Maintenance Section and a Medical Section. Its vehicles consist of a Flight CP, a rover, and other utility vehicles for the squadron.

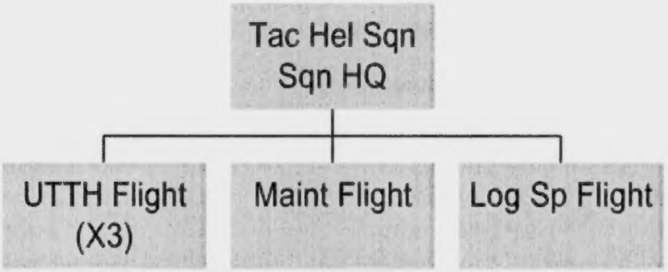


Figure 1-1. Line Diagram Of A Tactical Helicopter Squadron

2. The squadron will normally deploy to a secure area from where it can conduct operations. If the tactical situation requires the helicopters to be closer to the supported formation, the squadron can deploy its F Echelon and first line support elements forward. To support this concept, squadrons identify their sub-units by echelon, as follows:

a. **F Echelon**. Comprised of the helicopters, aircrew, and command and control equipment essential for any operation;

b. **A Echelon**. Contains the personnel, vehicles and equipment required to provide immediate support, repair, and maintenance for the F Echelon. It includes refuellers (FARP), servicing, rations, medical and recovery; and

c. **B Echelon**. Contains the bulk of the Maint Flt, the Log Sp Flt, and the Admin Section.

3. Each UTTH Flt will normally have affiliated A Echelon resources from the other flights, which accompany the flight when it deploys away from the main squadron location.

4. HQ Flight is comprised of the Command Section, Ops and Admin Sections as follows:

   a. **Command Section**. Composed of the CO, DCO, SCWO and a Sig Op/Driver;

   b. **Ops Section**. Composed of the Ops O, D/Ops O, Trg O, IO, NBCD O, UFSO, HQ SNCO, Met Techs, ATC and Sig Ops; and

   c. **Admin Section**. Composed of the Sqn Adjt and the SOR.

5. **CP Manning**. The Sqn Main CP is manned 24 hrs a day. Flight CPs must operate whenever helicopters are flying but may close down at other times with authorization from the Sqn Main CP.

6. **Siting**. The principal factors affecting the siting of the Sqn HQ are:

   a. **Communications**. The siting of the Sqn Main CP should permit good communications to the flights, preferably without the need for an RRB station. It should also be screened from enemy EW devices. The establishment and maintenance of communications with higher formations is the responsibility of the higher formation's HQ. Therefore, if RRB stations are required, they are to be provided by the higher formation. Access to a civilian telephone land line or cellular phones are restricted in their usefulness due the fact that they are an insecure means of communications;

   b. **Concealment**. Woods and villages offer the best cover, with the latter helping to counter thermal image and infra-red surveillance. Isolated or predictable cover must be avoided;

   c. **Protection**. A helicopter squadron does not have the integral protection afforded by land force units. If required by the tactical scenario, the squadron HQ may have to dig in or use cellars, underground car parks or narrow, steep sided pieces of ground in order to achieve a degree of protection from artillery or aerial attack;

   d. **Defence**. The Sqn HQ must always provide a measure of its own security. However, through the use of concealment and judicious selection of sites that are shielded by squadron defences, a greater degree of security may be maintained. Helicopters should never be allowed to land near (within one hundred metres) of the Sqn HQ; and

   e. **Accessibility**. The site chosen for a squadron should be easily accessible by wheeled vehicles, preferably with a covered final approach. Hard stand traffic circuits and concealed parking areas are all useful but may not always be possible.

7. These factors will frequently conflict and circumstances will determine the weight to be given to each. Normally, good communications will take precedence. Also, an alternate site must always be selected and reconnoitred.

8. **Layout**. The location and layout of the squadron will be governed by the tactical situation. An example of a squadron deployment layout is illustrated at Figure 1-2. The situation will dictate the location of the ambulance, met van, kitchen, latrines, and other specific elements of the unit.

9. The Squadron Operations Officer (S Ops O) is responsible for the layout of the Sqn Main CP. A suggested Sqn Main CP layout is shown at Figure 1-3. All squadron CP vehicles shall be configured to the same standard; however, CP vehicles designated as Office Vans are not configured to the CP standard. Specifically, c/s 0, 0A, 1, 2, and 3 are designated as CPs while c/s 5 and 8 are designated as office vans. Annex A details the CPs' publications and miscellaneous essential list. Also, as a minimum, the Sqn Main CP will maintain the following maps and information:

a. **Battle Map**. A Battle Map will be located in the Sqn Main CP and kept up-to-date by the Duty Ops O and the IO. The map's currency will be displayed in the upper right hand corner showing the DTG of the last amendment. A copy of the trace will be made twice daily and sent to the Alternate CP (Altn CP);

b. **Tactical Briefing Map**. A map will be maintained for briefing purposes by both Duty Ops O/Int Staff and located in the briefing tent;

c. **Squadron Primary And Alternate Locations And Defence Plan Traces**. Traces of the squadron primary and alternate locations, In and Out Routes, Crash RVs, Bug-Out Route(s) to alternate locations and defence plans will be kept in the Sqn Main CP and maintained by the SCWO; and

d. **General Information**:

(1) the LOCREP of squadron sub-units and detachments;

(2) the LOCREP of squadron HQ personnel and Flt Comds;

(3) passwords and codewords;

(4) Airspace Coordination Measures (ACMs);

(5) METREP;

(6) the DEPLOYREP of vehicles departing the squadron location (including personnel in vehicles);

(7) an up-to-date order of battle when such order is different from this SOP;

(8) the schedule for Reports and Returns;

(9) radio nets in use;

(10) a schedule of the shifts for Duty Ops O, Duty Ops NCM, Duty Int staff, Duty Clerk and Duty Sig Ops (see example Duty Roster at Annex D);

(11) the ACSTAT and LOCREP of all helicopters;

(12) bowser(s) fuel state(s);

(13) AD situation and NBCD state;

(14) vehicle serviceability state;

(15) CF 773s/MMAs as required;

(16) all flight plans and flight following forms, including the Estimated Time of Return (ETR) of all helicopters and files on all taskings/missions, and In/Out Messages;

(17) all Op Os/ FRAG Os;

(18) all Air Tasking Orders (ATOs) and Special Instructions (SPINS); and

(19) an Aircrew Information File (AIF).

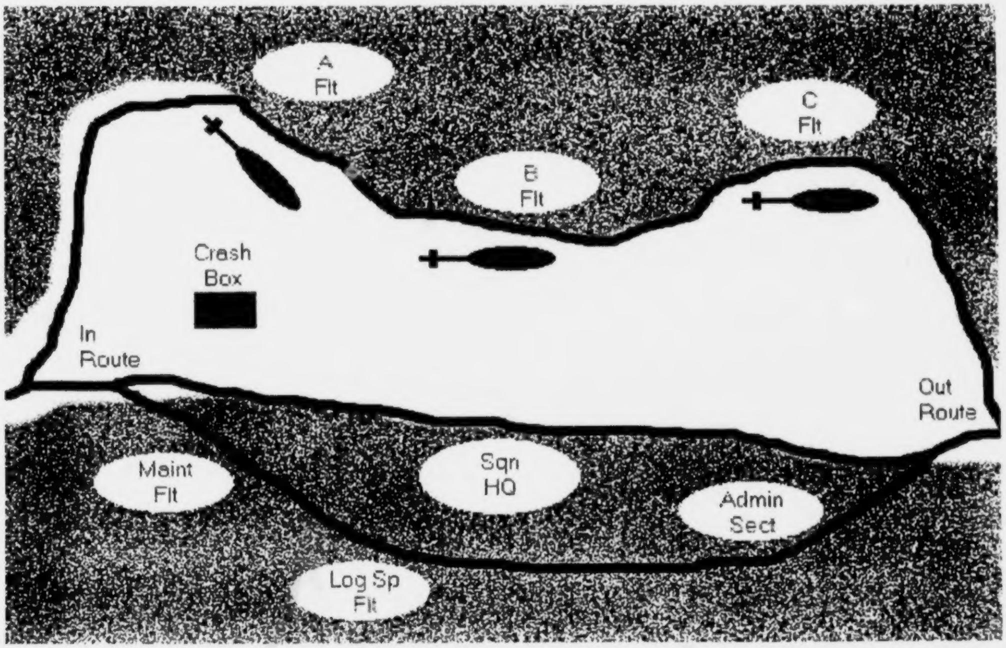

A Flt
C Flt
B Flt
Crash Box
In Route
Out Route
Maint Flt
Sqn HQ
Admin Sect
Log Sp Flt

Figure 1-2. Example Of A Squadron Deployment Layout

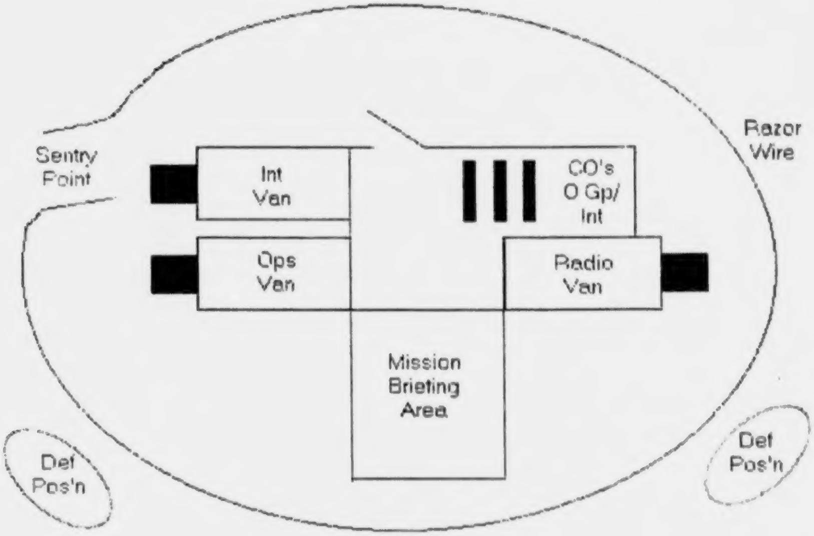


Figure 1-3. Layout Of A Squadron Main CP

102.02 HQ Protection

1. Clear provision must be made for defence of the Sqn HQ at all times. This is best done by collocating with the Log Sp Flt, Maintenance Flight and Admin Section. A routine CP sentry cannot be sustained without seriously impacting the operational capability of the HQ. Care must be taken not to create a concentration that endangers the entire organization. Good concealment and keeping the HQ size as small as possible are also important elements of protection.

2. **Access Control**. Access to the CP must be controlled to maintain security and minimize distractions. The CP sentry will allow access only to those who have business in the CP, following verification of identification.

102.03 HQ Movement

1. Movement will be conducted IAW WUSOP 601, Movement.

102.04 Squadron And HQ Routine

1. **Squadron Routine**. Daily routine will depend on the operation. Routine Orders (ROs) aid in the smooth running of the deployed squadron. They detail responsibilities for such things as guard duty, defensive groups (see WUSOP 504.01 for details), mess duties, non-SOP procedures, etc. Preliminary routine orders should be published prior to squadron deployment, however, ROs shall be published within 24 hours of arriving at a bivouac site, and updated following each squadron move or weekly, whichever comes first.

2. Examples of duties to be included, and their OPIs are:

a.	Ops Duty Officer	Ops O
b.	Duty NCM	SCWO
c.	mess duties	SCWO
d.	sentry duty	SCWO
e.	fire piquet	SCWO
f.	canteen duty	SCWO
g.	runner/SDS	Tpt NCM

3. **HQ Routine**. There must always be a DO who understands the current battle situation and the current codes and codewords. She/he must know the location of all HQ officers.

4. Good communications between the HQ and the CO are essential during all operations. To fulfil some of the functions, the HQ Duty O shall pass all information as follows:

ACTIVITIES	TO WHO	WHEN
Move of sub-units (Departure and arrival)	CO	On req
SITREP from Higher HQ	CO, IO and Ops O	On req
Orders from higher HQ	CO, IO, DCO and Ops O	ASAP
Sub-unit CONTACTREP	CO, IO, Ops O and Bde HQ	ASAP
Sub-unit SITREP	CO, IO and Ops O	On req

Table 1-1. Functions Of The HQ Duty Officer

5. Visitors, including officers arriving for orders, should first report to the DO or IO to ensure all have the latest information, before seeing the CO. All incoming personnel with messages must first report to the Main HQ. Unit officers, and visitors proceeding to another HQ, should check with the Sqn Main CP for any messages that they could deliver.

102.05 Liaison

1. Liaison is to be reciprocal when:

   a. Canadian (CA) units are placed OPCOM/TACOM of a HQ of another formation or nationality; and

   b. CA units flank a formation or units of another formation or nationality.

2. When liaison is not reciprocal, responsibility for establishing it is:

   a. left to right;

   b. rear to front;

   c. higher to lower formation or unit; and

   d. supporting forces establish liaison with supported force (e.g. An Avn LO for airmobile ops). **Exception**. Within the Canadian Brigade Land Force Units, liaison is established from the supported formation/unit to the supporting formation/unit.

3. When liaison is broken, both parties should attempt to re-establish it with primary responsibility remaining with the formation or unit originally providing it.

4. Visiting LOs normally provide their own transport and communications.

5. **LO Duties**. *Tactical Aviation Tactics, Techniques and Procedures*, (B-GA-442-001/FP-001), Chapter 6, Aviation Liaison Officer's Checklist and Briefing Format, discusses these duties in detail.

102.06 – 102.99 Not allocated

WUSOP 103 STAFF RESPONSIBILITIES AND ORGANIZATION

103.01 Command And Staff Responsibilities

1. **CO**. The CO commands all elements of the Squadron, including attachments. He/she maintains direct contact and a close relationship with flight commanders. He/she is the senior aviation advisor to the supported Formation Commander, and is responsible for the overall success of unit operations. The CO receives missions from higher headquarters, decides how squadron assets are to be employed and directs the execution of operational plans. The CO must be positioned during planning and execution, in a location that will ensure success of the mission. At times, the CO may conduct liaison functions, ensuring that squadron assets are being used to their maximum capabilities by the supported unit. During mission execution the CO must provide maximum effective command, control and support to committed assets to ensure their success. He/she maintains control and directs actions by:

   a. issuing specific orders;

   b. allocating available resources to accomplish tasks;

   c. issuing guidance to the staff to guide their planning efforts;

   d. developing an estimate; and

   e. establishing SOPs to ensure personnel accomplish routine tasks and operations.

2. **DCO**. The DCO acts on behalf of the CO and is responsible for ensuring that all concerned abide by the CO's policies, orders, instructions and direction. The DCO is also responsible for the overall administration within the unit, which includes movement, protection and publishing the Squadron Routine Orders. The DCO assumes the duties of the CO in the absence of the latter. He/she may also assume the responsibilities of the S Ops O when the situation dictates.

3. **SCWO**. Duties include:

   a. advising the CO on all matters affecting squadron personnel;

   b. assisting the DCO in establishing the unit defence plan;

   c. assisting the DCO in maintaining camp routine;

   d. being a member of the recce party;

   e. being a member of the CO's Tac HQ;

   f. setting up the squadron collecting point for Prisoners of War and responsible for their care and custody as per the formation directives;

   g. commanding the Defence Group;

   h. coordinating the Casualty Collection point; and

   i. collecting remains and effects of KIAs/WIAs.

4. **Adjutant**. The administration section is headed by the Adjutant and reports to the DCO. The Admin Section is responsible for providing the following functions:

   a. monitoring personnel accountability and strength reporting;

   b. processing replacements, and developing procedures for integrating combat replacements into the unit;

   c. monitoring media operations / cooperating with the Squadron Public Affairs Officer (P Aff O);

   d. administering the unit prisoner of war (PW) program in accordance with formation directives;

   e. monitoring unit strength and estimating personnel losses;

   f. coordinating religious, legal, financial, and public affairs services;

   g. issuing Routine Orders;

   h. processing routine correspondence; and

   i. processing recommendations for decorations and awards.

5. **Squadron Operations Officer (S Ops 0).** The S Ops O coordinates and controls the execution of tasks and missions on behalf of the CO. The S Ops O is also responsible for the effective operation of the Sqn Main CP, and may have to assume the responsibilities of the DCO in the absence of the latter. The operations officer coordinates and plans the combat operations of the unit. He/she monitors current and future operations, ensuring that essential combat assets are provided when and where required and anticipates developing situations and missions. The S Ops O and Ops Staff must be constantly aware of the changing situation. They must be fully aware of the combat capability of the unit, and advise the CO of the ability of the unit to meet all assigned missions. The S Ops O and Ops Staff must coordinate closely with all staff sections to fully support current and future operations. The S Ops section must be able to conduct current operations and simultaneously look ahead and plan future operations. If the CO employs a Tac Base, the S Ops O will normally collocate with the Tac Base to execute current operations. Like the CO, the S Ops O may, under certain circumstances, fill the role of a liaison officer (LO) when the unit's assets are task organized under another headquarters. This way, the S Ops O can ensure that squadron assets are employed to their maximum capabilities. His/her duties include:

a. responsibility for all squadron operations staff work;

b. assisting the CO in the preparation of tactical plans;

c. coordinating Main CP protection;

d. coordinating support from other arms and services;

e. coordinating all Squadron in-theatre training;

f. assuming command, if the CO becomes a casualty, during the absence of the DCO;

g. developing plans and orders;

h. establishing communications priorities;

i. coordinating and controlling Civil-Military (CIMIC) operations;

j. coordinating airspace and conducting airspace management;

k. requesting airspace control measures, if required;

l. selecting the locations of command posts (Sqn Ops, Tac Base);

m. coordinating alternate locations, routes, Helicopter Bug-Out RVs, Crash RVs;

n. responsible for Map O duties; and

o. coordinating with all flights, the daily flying schedule.

6. **The Deputy Ops O (D/Ops O).** The D/Ops O assists the S Ops O with the duties described above. The D/Ops O is essentially responsible for the direct supervision of the Ops staff.

7. **Duty Ops O**. The Duty Ops O is responsive to the D/Ops O and assists the S Ops O IAW the duties described at Annex B. The Duty Ops O shall report to Ops 30 minutes early to review the Radio Log, Ops Log (CF1065) and message files, prior to assuming his/her shift in ops. The Duty Ops O coming on shift shall sign the Ops Log indicating that the officer is now responsible for Sqn Main CP Ops on behalf of the S Ops O, at which point the departing Duty Ops O is released. The Duty Ops O remains in the CP at all times, unless authorized by the S Ops O.

8. **HQ SNCO**. His/her direct supervisor is the S Ops O. Duties include:

   a. completion of any S Ops O assigned tasks;

   b. advising the SCWO on all tactical ground matters;

   c. assisting the SCWO in establishing the unit defence plan;

   d. being a member of the recce group; and

   e. assisting the SCWO in setting up the squadron collecting point for PWs.

9. **Intelligence Officer (IO)**. The IO commands the Int Sect (1 Offr and 2 NCMs) in Sqn HQ. His/her duties include:

   a. applying the intelligence cycle including direction, collection, processing and dissemination of intelligence;

   b. advising the CO on any significant change in the battlefield situation;

   c. informing the CO on the enemy, terrain and weather;

   d. accompanying the CO to the formation O Gp for liaison with the formation G2;

   e. supervising the maintenance of the Int Log Sheet;

   f. supervising the maintenance of a collation system;

   g. disseminating intelligence throughout the squadron;

   h. briefing the enemy situation and weather (reference to ground operations) at the Sqn O Gp and issue overlays as required;

   i. mission briefing and debriefing;

   j. sharing Intelligence with IOs of flanking units and higher formation/supported organizations; and

   k. keeping the battle map current.

10. **Signal NCM**. The Sig NCM is responsible to the S Ops O for all tactical communications within the Squadron. The Sig NCM:

a. advises the CO and S Ops O on all matters relating to Signals and Communications maintenance;

b. coordinates all communications in support of the squadron;

c. is responsible for communications security (COMSEC), including receiving, custody and distribution of all signal instructions, codes and related matters; and

d. is responsible for the organization, control and efficiency of the Squadron Signals Section and effective operation of the Sqn Main CP.

11. **Signals Section**. The Sigs Sect is organized to provide the following:

a. a Sqn Main CP Signals Detachment;

b. a CRTTZ Detachment;

c. support to A, B and C Flt CPs;

d. a driver/Sig Op for the CO; and

e. first line Signals maintenance.

12. **Met Tech**. The Duty Met Tech provides weather info in support of squadron daily operations and provides weather data to the Int Staff for the METREP. The Met Tech will operate from his/her van and will provide met data to the Sqn Main CP.

13. **Flight Operations**. Flight Commanders are responsible for the operation of their respective CPs and Flights.

103.02 Duty Officer's Log and War Diary

1. **General**. Procedures for handling information in the Ops Centre are established to reduce this activity to a routine. This minimizes the effort required and the likelihood that important actions will be overlooked. All info is recorded in the Ops Log, which provides an abridged chronological record of all incoming and outgoing info, actions taken and decisions made. It provides a continuous story of the operations in progress, a check upon actions yet to be taken and a basis for the writing of the war diary. Because of its importance, a log must be maintained accurately and thoroughly.

2. **Operations Log**. It may be in electronic or legible written format, with copies located in the Altn CP. The Ops Log will contain as a minimum, the following information:

a. the pertinent details of all incoming and outgoing radio messages and reports;

b. incoming and outgoing written messages and reports (lengthy messages and reports may be paraphrased in the log or they may be merely noted and reference made to the location of the files holding the docs);

c. information and verbal messages from visiting commanders, LOs, other visitors, prisoners, agents and friendly civilians;

d. the location of the commander and the principal staff officers;

e. the issue of Ops and Admin Orders, and the time of dispersal of O Gps and conferences;

f. the interruption or loss of communications facilities and their restoration; and

g. other information which enables SITREPs and the War Diary to be written from the log.

3. It is important that log entries accurately record the date and time of events. The source of origin and time of receipt of information must also be recorded. The Duty Ops O must initial the appropriate column to indicate that action has been taken, if required, so others can refer to him/her, if clarification is necessary.

4. At the squadron level, Ops and Int matters are recorded in their own respective Log. If separate logs are maintained, the officer responsible must ensure that the other staff is fully informed of any new information within minutes of its receipt. Flt CPs maintain their respective Ops Logs.

5. Copies of the Main Ops Log are always available to the CO and other staff. Log sheets must be closed off frequently and circulated to the principal staff officers while the information that they contain is still current. A copy is also forwarded to the designated Step-up and Altn CPs.

6. **War Diary**. The purpose of a War Diary is to provide accurate and authorized historical records for analyses and official histories. When a War Diary is required instead of an Annual Historical Report, the appropriate CO, will be notified by NDHQ via the chain of command. Instructions for compiling and rendering a War Diary are included in forms CF 301, War Diary Cover, and CF 302, War Diary Sheet, which shall be stocked by users in quantities sufficient for 12 months.

7. The CO shall appoint officers to ensure the preservation of the historical record of an operation. War Diaries shall be reviewed rigorously at all levels for errors, omissions and discrepancies, and for clarification and amplification where necessary, so complete, accurate records may be available.

103.03 (Not applicable)

103.04 – 103.99 Not allocated

WUSOP 104 STEP-UP PROCEDURE

104.01 General

1. The HQ must be capable of moving quickly between locations. Movement is necessary, either to keep up with the battle, i.e. to maintain good communications with Formations or Flights, or to avoid detection or attack.

2. The two major hazards associated with a move are:

   a. the elements of a HQ are placed in increased danger of detection or attack; and

   b. the move may interfere with the continuity of Ops.

3. The foremost consideration in planning a move is that there must be a capability to maintain control of the squadron assets at all times.

4. **Sequence**. The normal sequence of events for a HQ move is as follows:

   a. a Step-up HQ is sent to the proposed new location with the Advance Party well before the move. The DCO commands the Advance Party;

   b. the Step-up HQ (c/s 0B) will establish communications on the higher formation command net and all stations (less aircraft) on the Sqn Comd Net;

   c. the Step-up HQ will monitor flight following;

   d. 0B will request a SITREP from Main HQ (c/s 0) before advising of being ready to assume control;

   e. when the Main HQ is ready to move, it orders the Step-up HQ to assume control of Ops. The Step-up HQ does so and the Main HQ ceases transmission;

   f. thereafter the Step-up HQ will use c/s 0;

   g. with the Step-up HQ controlling Ops, the Main HQ moves to its new location, where guides from the Advance Party lead the various elements into position. During this period, the Main HQ maintains electronic silence to the maximum extent practicable, but operations are monitored so that the staff remains abreast of the situation;

   h. the Step-up HQ continues operating until directed to hand over to the Main HQ;

   i. the CO and/or, Ops O decides when the Main HQ should resume the control of Ops; and

   j. following the transfer of Ops back to the Main HQ, the Step-up HQ stands down.

5. The Duty Ops O must pass the following documents to the Step-up HQ before it departs the squadron location:

  a. copies of relevant Op Os, Op Instrs and Trg Instrs;

  b. a copy of all Ops and Int Log sheets;

  c. copies of all traces and plans for current and anticipated ops;

  d. copies of all missions and tasks; and

  e. confirmed current CEOIs and Codewords.

104.02 Distribution of Staff

1. Under normal circumstances, the staff of the Step-up HQ is capable of supervising and coordination tactical and support services activities. If the pace of operations is intense, selected staff officers, typically the Ops O and some admin staff, with selected members of their staffs, may be required to join the Step-up HQ.

2. Also, should the Step-up HQ be required to function as the Main CP for longer than 12 hrs, it will need augmentation. These could be, but are not limited to, the addition of one Duty O, the IO and two Sig Ops.

104.03 – 104.99 Not allocated

WUSOP 105 SQUADRON INTEGRAL CSS ORGANIZATION

105.01 General

1. The aim of the Squadron Combat Service Support (CSS) organization is to provide the materiel, supplies and technician skills to enable the Squadron to accomplish its missions. It is comprised of the Maintenance and Logistic Support Flights.

2. The A echelon staff must always be aware of the CO's future intentions by keeping themselves well informed of what's happening in the Main HQ. Due to its dependence on external agencies, they must be involved in the preliminary planning of an operation in order to support it adequately.

3. The principles of administration apply at all levels of command. They are:

  a. foresight;

  b. economy;

  c. flexibility;

  d. simplicity; and

  e. cooperation.

4. To exploit these principles, the CO must always have the following information:

   a. the unit's strength (WIA, MIA, KIA, AWOL, etc.);

   b. the aircraft and vehicle status;

   c. materiel conditions and expenditure (Rate);

   d. shortfalls (present and future);

   e. the position of echelons (A1; A2), if required; and

   f. the current grouping or possible requirements.

5. Self-sufficiency is an additional fundamental of administration, often grouped in with the principles above. It refers to the fact that the CO must ensure that the unit has sufficient resources to permit the execution of the tactical mission. A CO is not necessarily restricted to specific supply scales and, where consumption rates are expected to be higher than normal, must arrange for increases in the unit holdings.

105.02 Maintenance Flight Organization

1. **General**. Commanders must ensure that the maintenance organization is able to repair and return aircraft to operational service as rapidly as possible. The Maint Flt, which supports tactical helicopter operations, must be sufficiently manned to allow for the efficient repair and maintenance of aircraft in austere locations. Maint personnel require knowledge and training to conduct these activities from non-secure areas.

2. The Maintenance Flt Comd (SAMEO) will establish the personnel required to conduct the following tasks:

   a. provide aircraft maintenance support services to include establishing a/an:

      (1) AMCRO section to operate a/an:

         (a) Maint Flt CP,

         (b) log control (LOGCON) section,

         (c) modification and special inspection section,

         (d) Master Technical Library,

         (e) AMMIS/DEPADAM section, and

         (f) engineering research section;

      (2) aircraft life support equipment section,

      (3) aircraft structures section,

      (4) avionics section,

      (5) aircraft maintenance support equipment section,

      (6) aircraft component section,

(7) battery shop, and

(8) aircraft tool crib;

b. rectify aircraft snags;

c. configure aircraft;

d. provide FARPs (as required);

e. respond to aircraft repair, recovery and Aircraft Battle Damage Repair (ABDR) requests; and

f. perform aircraft inspections.

105.03 Logistics Support Flight Organization

1. **General**. Tactical helicopter units will make use of the land force logistics system when deployed with the land forces, and are resupplied identically to other land force units. First line logistic support remains the responsibility of the unit; this includes the coordination and passage of requests, and the coordination of movements of supply items between second line support units and the squadron. Large spare part assemblies and highly specialized maintenance equipment should not normally be located with the squadron, therefore the Bell Helicopter COOP System should be used (see WUSOP 602.01 para 4.c. for COOP procedures).

2. The Log Sp Flt Comd must thoroughly understand the CO's intent and initiate timely actions to support that intent. He/she must monitor the tactical situation in order to provide timely logistics support and be integrated into the operational planning in order to fully synchronize logistics with combat plans and orders. The Log Sp Flt Comd is responsible for the following:

a. ensuring that casualties are reported timely and accurately;

b. planning health service support for the unit, coordinating with medical assets for required support and planning the casualty evacuation of unit soldiers in support of unit operations;

c. preparing logistics estimates;

d. tracking the status of main supply routes (MSRs) and requests alternate MSRs, if required;

e. tracking current unit status of supplies and maintenance;

f. planning and controlling movements;

g. planning for supply and maintenance requirements;

h. planning for transportation requirements and requesting additional assets if the transportation ability of the unit is exceeded;

i. requesting, receiving, storing and distributing supplies;

j. establishing CSS and maintenance support priorities IAW the CO's guidance;

k. determining the requirements for civilian labour and logistics support;

l. collecting and disposing of excess property, salvage, and captured material; and

m. conducting a combat service support (CSS) rehearsal, synchronizing all CSS elements with current unit operations preparations.

105.04 - 105.99 Not allocated

WUSOP 106 COMMAND RELATIONSHIPS

106.01 Command Relationships

1. The command relationships between a supported land force formation/unit and a supporting tactical helicopter wing/squadron/flight are operational command (OPCOM), operational control (OPCON), tactical command (TACOM) or tactical control (TACON). Helicopter assets can expect to be employed on the battlefield in all of these command relationships and a thorough understanding of all aspects of each term is required for all operators. Specific definitions can be found in B-GA-440-000/AF-000, *Tactical Helicopter Operations* and B-GL-300-003/FP-000, *Command*. A reference table that summarizes the command relationships follows:

	Full Comd(1)	COMD(2)		CON(5)		Planning Auth(7)
		OPCOM (3)	TACOM (4)	OPCON(6)	TACON(10)	
1. Assign Separate Employment of Components of Units/Fmns	X	X				
2. Assign Msns(8)	X	X	X	X		
3. Assign Tasks	X	X	X	X		
4. Delegate Equal Command Status	X	X	X	X		
5. Delegate Lower Command Status	X	X	X	X		
6. Coordination of Local Moves, Real Estate and Area Defence	X	X	X	X	X	
7. Planning and Coordination	X	X	X	X	X	X
8. Admin Responsibility(9)	X					

Table 1-2. Command Relationships

NOTES:

(1) Canadian and NATO doctrine does not permit the surrender of complete command of a unit or formation to forces of another nation or a combined force commander. The national authority, normally the CDS, therefore, always retains FULL COMMAND.

(2) Command terms are normally used with the manoeuvre arms, e.g. Infantry, Armoured and Aviation.

(3) OPCOM is the authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces, and to retain or delegate OPCOM or TACOM or OPCON as may be deemed necessary.

(4) A commander assigned forces under TACOM may allocate tasks to those forces but only within the parameters of the current mission given by the higher authority which assigns the forces. TACOM is used where the superior commander recognizes the need for additional resources for a task but requires the resources intact for a later role.

(5) Control terms are normally used with support or service arms, e.g. Artillery, Signals, Military Police, General Support Engineers, etc., where a technical authority generally exists to advise on employment of these resources.

(6) OPCON is the authority delegated to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time, or location; to deploy units concerned and to retain or assign tactical control of those units. If the requirement develops for separate employment, the higher commander must approve the change.

(7) Planning authority is used where there is the potential for a command relationship in the future. Planning authority gives the units/fmns involved the authority to liaise directly for planning purposes. This authority could be given, for instance to a unit undergoing work-up training in CA with the unit they are to replace on UN duty.

(8) Mission is defined in AAP-6 as: "A clear, concise statement of the task of the command and its purpose".

(9) Sustainment responsibility is not included with the Command Relationship for any joint, combined or multinational operation. Within Canadian national arrangements only, OPCOM, TACOM and OPCON normally include the administrative responsibility, ATTACHED FOR DAILY MAINTENANCE. If the relationship is other than normal combat supplies, the exact relationship must be specified. (e.g. aviation specific requirements).

(10) A unit may be placed under TACON of a coordinating HQ for security purposes. This replaces the old "In Location" relationship, and would normally be used when a flight or other squadron element is located within another unit's boundaries.

Miscellaneous:

1. Command Relationships will always be qualified by the DTG at which they begin. The DTG at which they end should also be specified, if known.
2. LOs are normally associated as an SOP to the unit/fmn where they will be employed. If not, the term "Allocated" may be used. CAS sorties are "Allocated".
3. Coordination centres such as the TACP, EWCC and FSCC normally function with a unit/fmn as an SOP. If not SOP, they should be assigned OPCON.

106.02 Alternate Command Procedures

1. It is possible that Sqn HQ could be either partially or completely destroyed by enemy action. At the squadron level, there are insufficient personnel and radios to man a second or alternate HQ with anything more than a skeleton staff. In the event of damage to Sqn Main CP, command and control of the squadron must be regained quickly as follows:

   a. **CO A Casualty, But HQ Intact**. The DCO assumes command. If the DCO is absent, the Ops O commands in the interim;

   b. **CO and HQ Destroyed**. The DCO assumes command from an Altn HQ (normally A Flt CP); and

   c. **CO Is Away From Squadron HQ When It Is Destroyed**. The CO commands from the Altn HQ until he/she can make arrangements to organize a new Main CP.

2. The CO designates an Altn HQ for each operation, separate from the Main HQ with the role of ensuring continuity of control, as well as an alternate command should both the CO and DCO become casualty (e.g. A Flt CP).

3. **Command will succeed in the following order**:

   a. CO;

   b. DCO;

   c. S Ops O;

   d. A Flt Comd;

   e. B Flt Comd; and

   f. C Flt Comd.

4. **The Senior NCM command will succeed as follows**:

   a. SCWO (CWO);

   b. SAMS (MWO);

   c. Sr Flt Engr (MWO); and

   d. Log Sp Flt WO.

106.03 Tactical Grouping

1. **Orders Group (O Gp)**. The Sqn O Gp will normally consist of the following personnel:

a. CO;

b. DCO;

c. S Ops O;

d. Flt Comds (includes the SAMEO, Log O, Adjt);

e. IO;

f. UFSO;

g. SCWO;

h. Sig NCM; and

i. LO (as required).

2. **O Gp Procedures**. An O Gp will be held each day as detailed in Routine Orders. The O Gp members will arrive 15 minutes early to conduct liaison and mark maps. The S Ops O is responsible for organizing the O Gp, preparing the map, and issuing general information, prior to the commencement of orders. The IO will assume responsibility for the Enemy situation paragraph to the Op O. The Sig NCM will assume responsibility for the time check. Orders may be transmitted by voice radio. Confirmatory Orders or notes will not normally be issued. Consult with the S Ops O prior to departing from the O Gp to confirm details. A format for a Sqn Wng O, Orders and Fragmentation Orders is shown at Annex C.

106.04 – 106.99 Not allocated

WUSOP 107 REPORTS AND RETURNS

107.01 General

1. Reports and returns to be normally used by a squadron are detailed in Part 7. Reports and returns are laid out in an internationally agreed format, and they are also IAW Land Forces' *FSOPs* (B-GL-333-001/FP-001) and *USOPs* (B-GL-332-001/FP-001 VOL 1) format. The format required for the remaining reports and returns can be found in the latter two documents. Serials need to be completed only where applicable (i.e. by exception), provided the meaning is clear.

2. Formation HQ must stipulate when routine reports and returns are required. Time tables for responses are provided in WUSOP 701.

107.02 – 107.99 Not allocated

WUSOP 108 STATES OF READINESS

108.01 General

1. The State of Readiness defines the Squadron's readiness to move. States of Readiness are adopted to prepare the Squadron for an upcoming operation, move, or imminent attack. The various States of Readiness have a corresponding identification letter. Commanders at all levels must keep personnel and equipment at an appropriate State of Readiness. Unless directed otherwise by a higher HQ, squadrons will derive their readiness from the following chart:

States of Readiness	Notice to Move	Preparedness
A	Ready to move immediately	Crews mounted, engines running, radios on, weapons made safe, sentries are recalled.
B	5 Mins	Equipment loaded, engines off, cam down but concealed, personnel fully equipped, Flt Comds ready for orders, sentries out, radio watch, no tel line, no cooking, emergency maint only.
C	15 Mins	Engines off, radio watch (one per sub-sub-unit), no tel line, cam down (visual and thermal), crews dressed, personnel resting, minimum cooking, limited maintenance and sentries out.
D	30 Mins	Equipment loaded, engines off, cam up (visual and thermal), radio watch (one per sub-sub-unit), tel line laid, personnel resting, sentries out, urgent maintenance only, cooking allowed (IMP), latrines are filled in, all tents and equipment loaded into vehicles, and emergency replenishment only is done.
E	1 Hr	Full visual and thermal cam, sentries out, maximum maintenance and rest, and kitchen dismantled.
F	2 Hrs	Not to be employed on any tasks without supported HQ authorization, not to leave the Squadron location without HQ approval, all possible equipment, including defensive stores, sign posts and personal equipment is loaded into vehicles, trenches are filled in, canvas is dismantled less CPs, kitchen complex is dismantled and stored, undertake maintenance and rest, swill pits and latrines dismantled, and hot meals allowed.

States of Readiness	Notice to Move	Preparedness
G	6 Hrs	Allows recce and confirmation of task prior to main body move, elms (Recce Gp) likely to be at reduced notice to move, unnecessary equipment is loaded, necessary replenishment, maint and repairs are completed.

NOTES:

1. If different states of readiness are adopted, the preparedness that is required must be stated. (e.g. No Move Before (NMB) 45 minutes, full visual and thermal cam, urgent maintenance, maximum rest).
2. The NMB timing is the time available before a move begins from current locations, e.g. On one hour NTM as of 1100 hrs (NMB 1200 hrs), on 30 minutes NTM as of 1200 hrs (NMB 1230 hrs), and on 15 minutes NTM as of 1230 hrs (NMB 1245 hrs).
3. If the squadron is deployed with a significant second line maintenance capability, the Maint Flt will be at a readiness state more in the order of 12-24 hours NTM. This, depending on whether infrastructure such as sprung shelters must be torn down, or can be abandoned, and whether SEVs have been dismounted from their vehicles.

108.02 – 108.03 Not allocated

WUSOP 109 RULES OF ENGAGEMENT (ROEs)

109.01 General

1. Given the extremely broad range of operations that a squadron must be prepared for, it is recognized that ROEs will have to be tailored to individual operations as they occur. ROEs are broken down into two different sub-groups:

   a. **Non-Combat ROEs**. These ROEs will normally be in effect during the initial deployment to a theatre of operations, and could remain in effect during the initial phase on conflict. Even during war-like conditions, Non-Combat ROEs may remain in force within specified geographical areas of the theatre; and

   b. **Combat ROEs**. Transfer to combat ROEs will be confirmed by the national chain of command and will take place on the outbreak of war. These ROEs permit a liberal use of force against identified military objectives or targets.

109.02 Responsibility

1. The authority that authorizes an operation must provide comprehensive ROEs to field commanders, prior to the committal of troops and equipment. This guidance is required to minimize loss of life and equipment and to prevent the occurrence of potentially contentious incidents. The Authority providing ROEs must clearly lay out the authority and procedures for changing ROEs, especially the transfer from "Non" to "Combat" ROEs.

109.03 Non-Combat ROEs

1. Non-combat ROEs are essentially defensive ROEs and following the principle of minimal use of force. While giving commanders the maximum permissible freedom to deploy and protect their personnel and equipment, these ROEs will be used to prevent provocative acts that might heighten tension or worsen a crisis. Restrictions on border crossing authority, use of indirect fire, and emplacement of obstacles will normally be included in these ROEs.

109.04 Combat ROEs

1. These ROEs will permit commanders to employ their forces in support of the military mission. In addition to the Laws of Armed Conflict, political or cultural reasons may require restrictions on the methods by which the military mission is achieved. Commanders must be aware that some of their subordinate elements, or part of their Area Of Responsibility (AOR), may remain under Non-Combat ROEs throughout an operation.

109.05 ROEs – All-Arms Air Defence (AAAD)

1. ROEs for AAAD will be promulgated by the formation /task force Commander in orders. The following will be defined:

    a. **Before A General Declaration Of Hostilities**. A statement of the conditions in which AAAD weapons may engage potential enemy aircraft during the period of tension before hostilities; and

    b. **After A Declaration Of Hostilities**. The conditions in which AAAD weapons may engage hostile aircraft.

2. **Weapon(s) Control Orders (WCOs)**. Confirmation of the applicable orders as defined in WUSOP 704. In Air Defence (AD), WCOs are orders whereby AD weapons systems may be fired. WCOs for surface AD systems whose arcs of fire intercept a Low Level Transit Route (LLTR) remain “Weapons Tight” over that part of the route at all times. Should it become necessary to change to “Weapons Free”, then that particular corridor must be closed. The NATO defined AD WCOs are as follows:

    a. **Weapons Hold**. In air defence, a WCO imposing a status whereby weapons system may only be fired in self-defence or in response to a formal order;

b. **Weapons Tight**. In air defence, a WCO imposing a status whereby weapons system may be fired only at targets positively recognized as hostile; and

c. **Weapons Free**. In air defence, a WCO imposing a status whereby weapons system may be fired at any target not positively recognized as friendly.

3. **Hostile Act Criteria**. The following are considered "hostile" aircraft acts:

a. an aircraft whose recognition features clearly identify it as a type used only by the enemy;

b. an aircraft that commits a hostile act by:

(1) attacking a friendly unit,

(2) dropping paratroops or by air landing troops where both aircraft and troops are visually identified as enemy, or

(3) manoeuvring unmistakably into position to attack friendly forces or facilities;

c. such aircraft must meet criteria promulgated by the formation commander before and subsequent to the commencement of hostilities; and

d. flight into restricted airspace or an incorrect IFF identification signature.

109.06 Prisoner Of War (PW)

1. As per the Geneva Conventions and the Laws of Armed Conflict, all enemy personnel (including military, volunteers, and attached civilians) who carry arms openly are to be treated as a PW, if captured, even if not in uniform. All those of PW status should have some proof of identification. If in doubt, treat as a PW. Note that enemy doctors and chaplains are not PWs, but do enjoy the same protection as a PW.

2. Captured tags will be carried on a scale of two per vehicle with a small reserve of tags held by flights and the Sqn Main CP.

3. The following actions are to be taken immediately upon capture of a PW:

a. disarm;

b. search for concealed weapons and information of immediate value;

c. ensure that this information is processed by the fastest means;

d. remove radio and communications equipment;

e. enforce silence;

f. do not take helmets, NBC protective equipment, paybooks, ID Cards and personal valuables;

g. segregate PWs as follows:

(1) Officers;

    (2) WOs and Senior NCOs; and
    (3) Other Ranks;

h. fill in capture tags and report to main HQ (one for each person and equipment/documents);

i. escort PW to the collecting point or RV (away from main HQ and CPs);

j. ratio of guards to PW is 1:10 with never less than two guards; and

k. do not interrogate.

4. Once captured, PWs must be protected from hostile actions (friendly or enemy) and environmental hazards. They must be fed, sheltered and protected from harm and treated as humanely as possible. The PW cage should be located away from all facilities (HQ, CP, Kitchen, Supply, etc.). They will be evacuated to the formation PW cage as soon as possible for proper handling and questioning, if required.

5. Handle wounded PWs as above, but evacuate through normal Medical channels.

109.07 – 109.99 Not allocated

SQUADRON HQ, STEP-UP HQ AND ALTERNATE HQ ESSENTIAL PUBLICATIONS/ EQUIPMENT LIST

1. **Publications**:

a. **NATO/ CFPs**:

* (1) ATP-40. *Doctrine and Procedures for Airspace Control in the Combat Zone*;

* (2) ATP-41. *Airmobile Operations*;

* (3) ATP-49(C). *Use of Helicopters in Land Operations*;

* (4) B-GA-100-001/AA-000. *Flying Orders Vols 1,2,3 Flight Rules*;

* (5) A-LM-117-001/FP-001. *Transportation of Dangerous Goods by CF Aircraft*;

(6) A-AD-121-C01/FP-000. *Staff and Writing Procedures for the Department of National Defence and the Canadian Forces*;

(7) A-AD-121-501/JX-000. Flight Operations Lexicon or A-AD-121-502/JX-000 Helicopter Technical Lexicon;

* (8) A-AD-121-F01/JX-000. *Canadian Forces Manual of Abbreviations*;

* (9) A-GA-135-001/AA-001. *Flight Safety for the CF*;

(10) B-SI-315-002/FT-001. *Security and Intelligence Vol 2. Intelligence in the Field (Draft)*;

(11) B-GL-300-000/FP-000. *The Army Operations - Land and Technical Air-Tactical;*

(12) B-GL-300-001/FP-000. *Conduct of Land Operations. Operational Level Doctrine for the Canadian Army*;

* (13) B-GL-300-002/FP-000. *Land Force Tactical Doctrine*;

* (14) B-GL-300-003/FP-000. *Land Force Command*;

* (15) B-GL-302-003/FP-001. *Formation Standing Operating Procedures*;

* (16) B-GL-303-002/FP-Z01. *Military Symbols, Vol 2, Supp 1;*

* (17) B-GL-303-002/FP-Z02., *Field Message Format, Supp 2*;

(18) B-GL-303-004/AF-001. *Operational Staff Data (Interim 1)*;

(19) B-GL-321-001/FT-001. *Signals in Battle Vol 1. Principles and Employment*;

(20) B-GL-303-002/FP-000. *Operational Staff Procedures*;

* (21) B-GL-332-001/FP-001. *Unit Standing Operating Procedures, Vol 1*;

* (22) B-GL-331-005/FP-001. *Electronic Battle Box*;

* (23) B-GL-364-001/FP-001. *Land Force Counter-Surveillance*; and

(24) B-GL-371-002/FP-001. *Duties Of The Battery Commander And the Observer*;

b. **1 CAD/ 1 Wing**:

* (1) 1 CAD Orders;

* (2) B-GA-440-000/AF-000. *Tactical Helicopter Operations*;

* (3) B-GA-441-001/FP-001. *Tactical Level Aviation Doctrine*;

* (4) B-GA-442-001/FP-001. *Tactical Aviation Tactics, Techniques & Procedures*;

* (5) B-GA-443-001/FP-001. *1 Wing Unit Standard Operating Procedures*;

* (6) B-GA-444-001/FP-001. *1 Wing Tactical Aide Memoire*;

* (7) B-GA-445-000/FP-001. *1 Wing CH 146 In-Flight Systems and Procedures Handbook;*

* (8) B-GL-332-001/FP-001 (Vol II). (Land Force) *USOPs and Tactical Aide Memoire,* including the *Tactical Aviation Insert, Part 8, TAM 809*;

* (9) CFACM 4046. *CH 146 Standard Manoeuvre Manual*;

* (10) C-12-146-000/MB-001. *CH 146 Flight Manual*; and

* (11) *1 Wing Squadron Intelligence Section Handbook*;

c. **Squadron**:

* (1) SOPs;

* (2) Flying Orders;

(3) Organization and duty analysis;

(4) Standing Orders and Administrative Orders; and

* (5) Manual of Aerospace Procedures; and

d. **Base**:

* (1) Flying Orders;

(2) Standing Operating Procedures; and

(3) Range Standing Orders (if applicable).

2. **Required Forms**:

   a. Air Request / Task Forms;

   b. CF 1065 Ops Log; and

   c. ICAO Flight Plan Forms.

3. **Miscellaneous**:

   a. maps of the AO;

   b. stationary;

   c. clipboards;

   d. GPH 204, and all current IFR Pubs for theatre of operations;

   e. NOTAMs; and

   * f. two thermite and one fragmentation grenades to destroy the CP.

NOTE: * These items are required in all Sqn CPs.

DUTY OPS O AIDE MEMOIRE

1. The Duty Ops O will report to the CP at least 30 minutes early to be briefed by the outgoing Duty Ops O on:

   a. higher HQ plans and intentions;

   b. squadron plans and intentions;

   c. squadron Signal and Operations Logs; and

   d. message files.

2. During the tour of duty, the Duty Ops O will:

   a. coordinate squadron activities and issue executive orders as directed;

   b. update information displayed on the battle map;

   c. monitor the applicable radio nets including squadron, supported unit, brigade, and HF;

   d. maintain a CF1065 Ops Log containing the information shown below. The yellow copy must be forwarded to the Step-up CP, while the Green, Blue and Pink copies shall be distributed to the Altn HQ, Maint CP and Log Sp Flt CPs respectively:

      (1) comings and goings of the CO, DCO, S Ops O, Adjutant, SCWO, and flight commanders when F, A and B echelons are collocated;

      (2) details of verbal reports received;

      (3) details of verbal or written orders received from the CO, DCO, or S Ops O;

      (4) DTG, subject and the principle points of message received and sent;

      (5) itinerary of LOs; and

      (6) visits of LOs and COs from affiliated units showing purpose of visit;

   e. maintain a telephone log as required;

   f. ensure that the CO is kept current on the battle situation;

   g. be prepared to brief the CO and visitors on two minutes notice;

   h. maintain an up-to-date LOCSTAT board, including encoding of grid refs;

   i. brief and debrief mission commanders before and after each mission to ensure passage of all details;

   j. assist the D/Ops O in updating the daily flying schedule with current operations;

k. prepare and dispatch the appropriate reports and returns as required;

l. keep track of all personnel incidents and damage reported by flights and ensure that this information is passed onto the SCWO;

m. distribute pertinent information to all concerned;

n. ensure CF 773s, green sheets, and any oil samples are forwarded to the appropriate Flt by the first available means;

o. supervise the Duty Sig Op and the Duty NCM in their duties;

p. advise higher HQ of changes in:

    (1) squadron/flight (including proposed move),

    (2) enemy situation,

    (3) friendly situation, and

    (4) cas, acstat and vehstat;

q. be responsible for squadron moves to include:

    (1) inform flight personnel of probable moves,

    (2) ensure that all squadron personnel and equipment are prepared for move,

    (3) ensure the squadron/flight is ready to receive aircraft soonest, and

    (4) ensure initial camouflage and concealment is being carried out;

r. direct the deployment of the squadron defence organization in the absence of the SCWO;

s. document the name, address, phone number and all other pertinent details regarding ownership of land(s) being used by the squadron and its sub-units;

t. supervise voice procedure and radio discipline and debrief section/element leads as required after each mission;

u. have available up-to-date information on:

    (1) codes and CEOIs,

    (2) the squadron defence plan (including guard duty list, stand-to positions, squadron layout, In and Out Routes),

    (3) codewords, nicknames and passwords,

    (4) personnel, aircraft and vehicle status and location,

    (5) crash RV location and alternate squadron location,

    (6) tactical base and FARP location and personnel involved,

    (7) traces,
    (8) first and last light,
    (9) weather; and
    (10) tomorrow's plan (i.e. update/prepare next day's schedule); and

v. ensure that the incoming Duty Ops O is fully briefed (for the last shift of the night, ensure that the Duty Sig Op is up-to-date on the current situation).

SQUADRON WARNING ORDER, ORDERS AND FRAGMENTATION ORDERS FORMATS

SQUADRON WARNING ORDER

1. A Sqn Wng O must include the following:
    a. a general outline and the probable mission;
    b. the location and time for orders;
    c. an estimated time or notice to move for operations (i.e. no move before...);
    d. special requirements and aircraft configuration, if known;
    e. any restrictions on reconnaissance;
    f. any special administrative instructions regarding the primary support mission;
    g. maximize concurrent activities of all parties; and
    h. ack.
2. It might include:
    a. orders for preliminary operations, recce, regrouping or moves;
    b. assembly areas;
    c. advance and harbour parties; and
    d. limitations on recce, movement and use of transport, including helicopters.
3. Never delay a Wng O to make it more comprehensive.

SQUADRON ORDERS

4. The following orders are intended to be given to the squadron as a whole. Specific aviation mission and aircrew briefing orders formats are detailed in B-GA-442-001/ FP-001, *Tactical Aviation TTPs*. An outline for squadron orders format follows:

    a. **Christen The Ground**. Important features/reference points affecting operations;

    b. **Task Organization**. Include the time of effective organization changes and command (where applicable). May be included in Attachments and Detachments, by flight grouping in Execution or as a separate annex in written orders; and

    c. **"ORDERS."**

        (1) **SITUATION**:

            (a) **Enemy Forces**. The IO normally prepares this section. It including information on enemy composition, disposition, locations, movement, estimated strengths, identification, capabilities and objectives, which recipients need to know, and the METREP. Information about the enemy may be by text or verbal and may be displayed on an overlay;

(b) **Friendly Forces**. This sub-para is normally prepared by the S Ops O. It contains information on friendly forces, other than those attached to the squadron. The intentions of the issuing commander's superior are stated here (this information is derived from para 3.a. of the superior commander's Op O);

(c) **Meteorology**. The Met Tech provides the weather regarding the flying operations (forecasts, actuals, outlook, illumination for NVGs, etc.) and the IO provides the METREP affecting the ground operations; and

(d) **Atts and Dets**:

i. when not given under Task Org above or in an annex, units/sub-units remaining, attached, or detached, along with their comd relationships, are shown here;

ii. CSS units and relationships need not be listed here if an Admin O is to be issued with the Op O;

iii. troops in location are normally TACON for defence to unit/fmn owning the real estate. There is an obligation on the part of these troops to seek and accept direction for coordination of their activities while in another unit's or fmn's area; and

iv. arty units and their support relationships are also listed.

(2) **MISSION**. Sqn will: " conduct airmobile ops;"... in order to (Mission is stated twice during verbal orders).

(3) **EXECUTION**.

(a) **Gen Outline**. Detail the CO's intent and concept of operations in sufficient detail to allow the Flt Comds to understand the CO's intention and their part in it. If it is a mutli-tasked operation, then the "Main Effort" should also be stated. Include phases (if relevant);

(b) **Groupings and Tasks**. Detailed instructions to subordinate comds;

Elms	Remarks
Flts (HQ, Util)	Gp, tasks
Atts	Gp, tasks
Arty	Allocation of FOOs, tasks, AD tasks. Coord; CB policy, AMAs, airspace, AD wpns state, priority of fire, etc.
EW	Gp, task priorities EMCON State
CSS (Maint, Log Sp Flt)	Gp, tasks

(c) **COORDINATING INSTRUCTIONS**:

i. **Timings**. Chronological order;

ii. **Movement and Traffic Control**. A movement table may be listed in a separate annex;

iii. **Boundaries**. Boundaries are usually set out in a trace or an overlay that is included as an annex to the order;

iv. **Coordination Points**;

v. **Fire Plan**. Usually issued later to permit time for detailed coordination. Timings for DF plans to HQs are listed. Orders to implement fire plans are issued through arty channels;

vi. **Barrier Plan**;

vii. **Defensive Stores**. Def stores is given under Coord Instructions and not under the Service Support para;

viii. **ISTAR Plan**. This may be a separate annex and, if so, is referred to here;

ix. **NBCD**. Should include the commander's guidance on NBCD, planning requirements, constraints and a reference to the nuclear and chemical defence support plan. Warning and protective measures should be included, if they are not in SOPs;

x. **Recce**. Limitations on recce, if applicable;

xi. **Air**. Include here information on air support control agencies, e.g. TACPs·

xii. **Airspace**. Latest ACO;

xiii. **Downed Aircrew/Helicopters**. Evasion plan, SPINs, Recovery Plan; and

xiv. **Coordination Conference**. If a coordination conference is to be held, it should be the last item mentioned under Coord Instrs. Time and location of the coord conf are given.

(4) **SERVICE SUPPORT**:

(a) **Locations**. A and B Echelons (if required);

(b) **Medical**. Unit Aid Station location, Fd Amb LZ, and CASEVAC procedures;

(c) **Ammunition**;

(d) **Fuel**. Current and future FARP locations, open and close times;

(e) **Defensive Stores**. Type, location;

(f) **Feeding**;

(g) **PW**. Policy, location of PW collection point;

(h) **Recovery**. Location of aircraft MRP; and

(i) **BSA**. Location of the formation logistics LZ, and backhaul policy.

(5) **COMMAND AND SIGNALS**:

(a) **Locations and HQs**. Include future locations and opening times for squadron, formation;

(b) **Alternate Comd/HQ**. If different from WUSOPs;

(c) **Liaison**. LOs, Coordination/Contact Points;

(d) **CEOIs;**

(e) **ISTAR/EMCON/Counter-Surveillance**. Details not covered in Coordinating Instructions. This could be an Annex to the Orders;

(f) **Code Words/Nicknames/Nicknumbers**. Normally in a table format;

(g) **Passwords**; and

(h) **Time Check** (Sig NCO).

(6) **QUESTIONS**.

FRAGMENTATION ORDERS

5. **Sqn Frag O**. For use in a fast moving situation. Use five standard headings in sequence but only include essential information or that which has changed, as follows:

a. **SITUATION**. En tk bn est to be mov to atk 1 Blanks from GR 123456.

b. **MISSION**. Sqn will... in order to...!

c. **EXECUTION**.

(1) **A Flt**. Screen facing N between posns X and Y;

(2) **B Flt**. Prep to move four dismounted TOW dets from PZ PRINCESS to LZ DOG. Come to State of Readiness D (30 mins) from 1300 hrs; and

(3) **Timings**. H hour not before 1430 hrs;

d. **SERVICE SUPPORT**. "No change"; and

e. **COMMAND and SIGNALS**. "No change."

DUTY ROSTER FOR SQUADRON MAIN CP

DUTY ROSTER

DATE:______________________ TIMINGS: __________________________

1. **Operations Staff**:

   A. DUTY OPS OFFR:____________________________________

   B. DUTY OPS NCM:____________________________________

   C. DUTY SIG OP(s):__________________________________

   D. ALTN CP SIG OP:__________________________________

   E. DUTY ADMIN CLK:_________________________________

   F. DUTY INT STAFF: _________________________________

2. **Defence Groups**:

   A. GP A COMD:______________________________________

   B. GP A MBRS:______________________________________

   C. GP B COMD:______________________________________

   D. GP B MBRS:______________________________________

DAILY CEOI EXTRACT

Copy No ____________ **Effective Date** ______________

1. **FREQUENCIES**:

a. VHF/FM F1 __________________ VHF/FM F2 _____________

b. VHF/AM F1 __________________ VHF/AM F2 _____________

c. UHF/AM F1 __________________ UHF/AM F2 _____________

d. RECCE F1 __________________ RECCE F2 _____________

e. HF1 __________________ HF2 ____________________

f. F1 __________________ F2 ____________________

2. **NICKNAMES**:

a. IMPOSE ______________________ _______________________

b. LIFT ______________________ _______________________

c. BREAK ______________________ _______________________

d. FORNACODE _________________ OPS CODE _____________

e. PASSWORD __________________ CHANGE _______________

f. ALTN ______________________ _______________________

PART 2

INFORMATION OPERATIONS

WUSOP 201 INTELLIGENCE

201.01 The Intelligence Cycle

1. The passage of information is important at all levels. Any information of tactical significance must be reported to the supported formation HQ through the Squadron Main CP by the fastest, most secure means possible. The most critical intelligence requirements are specified in the Essential Elements of Information (EEI) contained in the Int Annex to the Op O.

2. The Squadron IO shall monitor intelligence information collected every two hours, and collate the information into a report at the time specified by the higher formation.

3. The process by which intelligence is produced and disseminated is called the Intelligence Cycle. It is a logical system of thought and action designed to reduce intelligence work to an uncomplicated procedure. The sequence is cyclical in nature since intelligence requires constant re-appraisal and updating, if it is to remain current and relevant to the CO's needs. For convenience, the cycle is divided into four principal elements:

   a. direction;

   b. collection;

   c. processing; and

   d. dissemination.

4. In order for this cycle to achieve optimum effectiveness, it is important that intelligence staff be informed of any new operational aim or mission as soon as possible so that the cycle can be set in motion at the earliest opportunity.

5. **Direction**. Direction involves the determination of intelligence requirements, the preparation of a collection plan, the issuance of orders and requests to collection sources and agencies and the continuous check on the productivity of those sources and agencies.

6. **Collection**. The collection phase is the exploitation of sources of information by collection agencies and the delivery of this information to the proper intelligence staff or processing agency for use in the production of intelligence.

7. **Processing**. Processing is the conversion of raw information into intelligence through five separate but closely related activities. These are:

   a. **Collation**. The grouping together of related items of information to provide a record of events and to facilitate further processing. It is the procedure of receiving, sorting and recording all information. At the lower levels of command, especially during mobile operations, collation may be no more than the maintenance of a log and a marked map;

b. **Evaluation**. Evaluation is the determination of pertinence, reliability and accuracy of the information and the elimination of non-essential information. Evaluation constitutes the appraisal of an item of information with respect to:

(1) the reliability of the source; and

(2) the credibility of the information;

c. **Analysis**. The stage at which information is reviewed in order to identify significant facts and draw appropriate conclusions;

d. **Integration**. The process of forming an intelligence pattern through the selection and combination of analyzed information; and

e. **Interpretation**. This is the determination of the significance of information in relation to information and intelligence already known. It is during this activity that final conclusions are drawn and finished intelligence is produced. This is essentially a mental process. It should be impartial and objective based on common sense, experience, service knowledge, previously obtained information and intelligence, comparison and deduction. Interpretation takes time and requires experience. Lack of time, particularly in fast moving operations, or lack of experience and access to other information or intelligence, may compel intelligence officers at lower levels to leave comprehensive interpretation to higher authority.

8. **Dissemination**. Dissemination is the timely delivery of intelligence in an appropriate form to those who need it. It is governed by the principles of clarity, conciseness, standardization, urgency, distribution, regularity, and security. Intelligence may be disseminated in an oral, written or graphic form. Means of dissemination include electrical/electronic telecommunications and physical communications.

201.02 Not applicable

201.03 Mission Briefing and Debriefing

1. **General**. The intelligence portion of aircrew briefings may often be given on a daily pre-planned basis to all aircrew, usually as part of the general daily briefing. This general briefing aids in reducing the amount of information given in pre-flight briefings.

2. Items, which should be covered by the intelligence staff in the general briefing, include a general summary of the hostile force situation (including ground, sea and air forces as applicable). Also, a brief overview of the friendly situation, a current estimate of the hostile force capabilities and intentions, and the terrain in the AO should be briefed.

3. **Mission Briefings**. Mission briefings are conducted to provide aircrew with the latest information concerning their mission. The IO shall provide the latest intelligence to include changes in force dispositions and activities since the last briefing, and possible countermeasures en route. The intelligence staff shall provide threat data to the mission planning process. Authentication and other special codes may be distributed by the intelligence staff.

4. The intelligence aspects of escape and evasion such as safe house locations and suggested routes, shall also be briefed. The remaining aspects of escape and evasion are the responsibility of the operations staff.

5. The success of any briefing depends largely on the observance of the three basic principles: clarity, relevance and brevity. Briefings should follow a logical pattern and sequence. If aircrews are incorrectly briefed, then they will be inadequately prepared for their mission. A mission briefing should include:

- a. an update on enemy force dispositions and activities;
- b. emphasis on enemy force dispositions and activities in their AO;
- c. data on threat systems deployed in and near their AO;
- d. potential en route flight hazards (as applicable):
  - (1) Meaconing, Intrusion, Jamming, and Interference (MIJI) activity;
  - (2) air defence activity (SAM/AAA/aircraft);
  - (3) threat emitter activity; and
  - (4) naval activity;
- e. recommended Escape and Evasion (E and E) procedures:
  - (1) call sign/frequencies of CSAR forces;
  - (2) hostile, friendly, and neutral areas;
  - (3) evasion geography;
  - (4) recommended evasion actions (if applicable);
  - (5) theatre recovery and authentication procedures;
  - (6) sanitization reminder;
  - (7) Evasion Plan of Action (EPA);
  - (8) Isolated Personnel Report (ISOPREP) review; and
  - (9) SPINS contained in the ATO;
- f. Essential Elements of Information (EEIs):
  - (1) enemy engagement tactics;
  - (2) firing ranges;
  - (3) electronic countermeasures (ECM);

(4) voice deception tactics and successful countermeasures; and

(5) target deception tactics and successful countermeasures;

g. briefing and reporting instructions:

(1) significant incidents, including Radar Laser Warning Receiver (RLWR), or Missile Approach Warning System (MAWS) indications;

(2) significant sightings; and

(3) MIJI occurrences; and

h. a COMSEC reminder.

6. **Mission Debriefing**. The purpose of debriefing aircrew is to ensure the collection of the maximum amount of useable information as soon as practicable after the mission. Aircrew should be debriefed individually and without interruption. A debriefing checklist should be used not only to record the debriefing but also to ensure that all points are covered in a routine sequence familiar to the aircrew and to prevent duplication. The intelligence staff should ensure that no vital point is overlooked during the debriefing and that all information, no matter how seemingly unimportant, is included in the report. A mission debriefing should include:

a. a description of any hostile activity as well as any significant RLWR or MAWS incidents;

b. anti-aircraft artillery (AAA):

(1) visibility;

(2) intensity of fire (light, moderate, heavy);

(3) location of aircraft when fire was received (origin of fire);

(4) accuracy;

(5) type of fire (barrage, radar-controlled, tracers);

(6) colour of airburst (orange, red, yellow, etc);

(7) type of weapons;

(8) fire coordination (sector, multi-directional, etc.); and

(9) altitude and effective range (tracer burnout);

c. surface to air missiles (SAMs):

(1) visibility (RLWR warnings);

(2) accuracy and number;

(3) type of missile;

(4) ability of missile to manoeuvre and lock on;

(5) size of the missile and type of warhead (if seen to explode);

    - (6) colour of smoke trail;
    - (7) characteristics of the missile flight (smooth, erratic, jerky);
    - (8) effect of electronic countermeasures (ECM) on the missile;
    - (9) fire coordination; and
    - (10) aircraft position, speed, and altitude when missile sighted (direction of origin of missile); and
- d. sightings:
    - (1) troop and equipment movements;
    - (2) rail and highway traffic;
    - (3) airfields, including the status of those under construction;
    - (4) sea, harbour, and inland water transportation activity;
    - (5) military training, staging, and storage areas; and
    - (6) any unusual or suspicious situation.

201.04 - 201.99 Not allocated

WUSOP 202 SIGNALS

202.01 General

1. The procedures, information and drills prescribed within this WUSOP will be followed by all unit personnel unless otherwise directed.

2. Communications provide the commander and staff the ability to effectively command and control the unit during all phases of conflict. Unit communications shall strictly adhere to all procedures contained within ACP 125 Cansupp 1(B), CESIs, Unit and formation CEOIs and Unit Signal Operating Instructions (SOIs).

202.02 Communications Systems

1. The communications systems for squadrons deployed in support of formations may include:

- a. combat net radio;
- b. local data network;
- c. line or trunk systems;
- d. Signal Dispatch Service (SDS); and
- e. Liaison Officers (LOs).

2. The following radio nets will normally be manned:

- a. Formation Comd Net,
- b. Formation Guard Net (HF);

c. Formation Adm Net;

d. Squadron Comd Net;

e. Formation CRTTZ Net; and

f. Range Safety Nets.

202.03 Frequency Management

1. In order to avoid interference on the battlefield with the units' communications systems, the unit Sig NCO (through the supported formations Chief Comm Op) is responsible for the management of the frequency spectrum. These frequencies are normally allocated by the supported formation in the form of a CEOI. However, when not utilizing a training area, specific requests must be made, normally 30 days in advance.

2. Frequencies are normally time oriented or changed daily. However, higher authority may revoke or impose restrictions depending on the size of the overall formation.

202.04 Line

1. Land line and trunk systems are best utilized when mobility is not a requirement but where signals security is essential. In the unit area of responsibility, land line will be used:

a. during periods of radio and electronic silence;

b. in the preparatory stages of offensive operations; and

c. as long as possible during defensive operations.

2. Civilian telephone systems should be used whenever possible to minimize the laying of field wire. As civilian lines are vulnerable to physical attack and intercept, they should be treated as secondary or non-secure systems unless crypto devices are used.

3. The laying of line to c/s 8 (switchboard) is a flight responsibility and should be done ASAP after the Squadron/Flt moves into a new location. The Sig NCO shall coord the laying of squadron telephone lines. The squadron switchboard will give squadron personnel access to both Base and local telephones, depending on the type of deployment.

202.05 Signal Dispatch Service (SDS)

1. SDS is a Dispatch Rider (DR) service operating on a schedule promulgated by the supported formation headquarters and moving from the main headquarters to all subordinate headquarters or command posts (the schedule is located in the SOR office van). Unscheduled DR service is usually available but is controlled by the Duty Officer of the higher headquarters.

202.06 Loss of Contact Drills

1. Should a station lose contact with the net, the following drill is used:

    a. check antennas and cables, both internal and external;

    b. check frequency and CEOIs;

    c. check vehicle or generator power; and

    d. turn radio "OFF", then "ON" and attempt to re-establish communications.

2. If a sudden and severe worsening of communications occurs, the control station can immediately order a change to an alternate frequency. If available, the use of a standby radio is recommended. Normally, if contact is not made within a pre-set time limit, operators should revert back to the old frequency. If a scheduled change occurs during a loss of communications, operators should switch to the scheduled frequency.

202.07 Emission Control (EMCON) Policy

1. EMCON is the selective control of emitted electromagnetic energy, with the aim of minimizing the enemies' detection of friendly emissions. EMCON is divided into two categories:

    a. **Electronic Silence**. A restriction placed on the use of all equipment that emits an electromagnetic signature. The following equipment is affected by electronic silence:

        (1) radio transmitters;

        (2) radars and active surveillance equipment;

        (3) active IR equipment;

        (4) laser range finders or target designators;

        (5) generators; and

        (6) any other equipment with an electromagnetic signature; and

    b. **Radio Silence**. A condition in which some or all radio equipment is used in receiving mode only. Radio silence affects all radio transmitters within the unit's area of responsibility.

2. All EMCON states are to be passed by secure means. Electronic silence is rarely imposed due to the essential role played by electronic equipment. When it is imposed, it is done by the highest command level possible. Radio silence may be imposed by any level of command on their subordinate formations, as the situation dictates. Radio silence is lifted by the commander that imposed it, except when that commander has delegated this authority.

3. EMCON states are described below:

EMCON Measure	Radio	Non Comms	White Light	Fire Control	Vehicle Lights	Noise, Movement	Radars
PREFIX	**'A'**	**'B'**	**'C'**	**'D'**	**'E'**	**'F'**	**'G'**
1	Electronic silence imposed. **No transmissions. All radios on listening watch.**	Total silence. No emissions, even for testing.	No white light to be used. Surv by passive means only.	No firing without permission of imposing commander(s).	No lights of any sort, including IR.	Total silence. No engines to be run. No mov of vehs and min mov of pers.	Total silence. No emissions, even for testing
2	**Radio silence imposed.** May be broken if Op sit justifies it, but revert to radio silence ASAP.	Min essential testing only. Silence may be broken for specific engagements, but must be re-imposed immediately afterwards.	Use of white light for emergency engagements, but Level 1 must be re-imposed afterwards.	Firing only in self-defence by individuals or units coming under direct enemy fire. Other fire only on authority of imposing command.	Convoy lights only. No IR.	Minimum essential running of engines and generators. Minimum use of heat and movement of pers or vehs.	Min essential testing only. Silence may be broken for specific engagements, but must be re-imposed immed afterwards
3	Silence lifted. **Normal radio use.**	As per Level 2 until first engagement after which silence is lifted for that weapon or system.	Normal use.	All weapons subject to normal fire control.	Side and convoy lights. IR only if authorized	Normal use of generators or engines, and normal movement of pers and vehs.	As for Measure 2, until first engagement, after which silence is lifted for that eqpt.
4	No restriction	No restriction	No restriction	No restriction	No restriction	No restriction	No restriction

Table 2-1. EMCON States

202.08 Communications Security (COMSEC)

1. The LF Crypto Distributing Authority (LFCDA) within the respective brigade, is the responsible agency for the control and distribution of all COMSEC material within the formation. The Squadron CO is responsible for all unit COMSEC material. In most cases, all issues and receipts of COMSEC material has been appointed to the Sqn Sig Sgt, who is known as the custodian. In his absence, the altn custodian will carry the task. These two individuals are responsible for the control, distribution and operation of the COMSEC systems used within the unit. All loan holders/users of COMSEC material must follow specified procedures and rules in order to ensure security is maintained at the highest level. The specified procedures are found in CIS/01/2(D).

202.09 Compromise of COMSEC Material

1. Captured COMSEC material is of supreme value to the enemy and is a severe loss to the unit. All COMSEC mat must be destroyed or disabled, in accordance with an emergency destruction plan, when the capture of COMSEC is imminent. The unit custodian must ensure that all pers using COMSEC mat are informed and trained in emergency destruction procedures.

2. The loss of COMSEC mat creates a COMSEC incident that must be reported by secure means and corrected immediately. Any compromise or suspected compromise must be reported as fast as possible up the chain of command. Speed in reporting the compromise is essential so that COMSEC keying material or electronic fills can be replaced ASAP. A compromise will normally result in a loss of momentum but could be as serious as causing the mission to fail.

202.10 Storage of COMSEC Material

1. COMSEC material must be stored in the appropriate manner IAW A-SJ-100-001/AS-000 *National Defence Security Policy* (NDSP) and CIS/01/2(D). In garrison, all radio crypto devices should be zeroized prior to storage.

202.11 Emergency Destruction Plan

1. The Emergency Destruction Plan is to be promulgated annually IAW CIS/01/2(D). It shall be reviewed upon receipt of any allocation code alterations, and amended accordingly.

2. **Escape and Evasion**. All personnel must try to avoid capture, but if capture appears imminent:

    a. remove visible evidence which may identify your unit / formation; and

    b. destroy or hide any tech eqpt or doc which may be of use to the enemy.

3. **If Captured**:

    a. reveal no info beyond Name, Rank, Date of Birth and SN; and

    b. attempt to escape and join the nearest CA or allied unit or if that is impractical, attempt to seek asylum in neutral territory.

4. **Authority For Destruction**. When capture is imminent, materiel will be destroyed upon the order of the CO, DCO, S Ops O or a delegated authority. The priority for destruction is as fols:

   a. classified docs, codes and key lists;

   b. crypto and ADP equipment;

   c. other communications and electrical equipment;

   d. POL;

   e. weapons, explosives and ammunitions; and

   f. combat vehicles and helicopters.

5. **Documents**. In the event that classified documents must be destroyed, it will be done by burning (time/ situation permitting). Two thermite and one incendiary grenades shall be kept in the document container to provide emergency destruction of classified material and the CP.

6. **Weapons**. Weapons will be destroyed by stripping the weapon, breaking the firing pin and piston, smashing breech blocks, crushing the magazine, breaking the butt, smashing the trigger assembly and disposing of the piece.

7. **Helicopters, Vehicles and Radios**. In the event of imminent capture or a planned move, all unserviceable helicopters and vehicles which must be left behind will be destroyed on order of the senior rank present. Destruction will be accomplished as follows:

   a. **Helicopters/Vehicles**. Destroy the engine(s) by firing several small arms round through it, then set fire to the helicopter or vehicle using gasoline from a broken fuel line;

   b. **Radio Equipment**. In case of imminent capture by the enemy, communications equipment will be destroyed in the following order of priority and by the following means:

      (1) COMSEC material and CEOIs will be destroyed by burning in the following priority:

         (a) PRI 1. All superceded material;

         (b) PRI 2. All current material;

         (c) PRI 3. All reserve material; and

         (d) PRI 4. All secure equipment;

      (2) crypto equipment with a sledge hammer or by burning,

      (3) radios with a hammer or by burning,

      (4) telephone switchboard with a sledge hammer or by burning, and

      (5) telephone line cut with wire cutters;

c. **Ammunition**. Place ammunition in piles, preferably in a trench, pour oil or gasoline over the pile. Use sufficient fuel to ensure that the fire will be hot enough to explode ammunition. Small arms ammunition must be unboxed before burning; and

d. **Helicopter Weapons**:

   (1) break the firing pin; and

   (2) dispose of the pieces.

202.12 Crypto Transmission Security

1. For successful operation of the squadron on the battlefield, it is important to maintain an Over The Air Re-keying (OTAR) Plan. This plan is the responsibility of the Sig NCO. It is a grouping of Crypto-variables on the battlefield that is constantly changing with the degree of the complexity of the overall battle plan. Use of a single Traffic Encryption Key (TEK) should be avoided at all costs, at any level of operations.

2. Crypto-variables are normally issued prior to deployment and if necessary updated electronically throughout the mission. However, during times of radio silence they are delivered by other means. It should be noted that current doctrine does not allow the Key Encryption Key (KEK) to be delivered electronically.

3. The Crypto Material Management System (CMMS) will determine which variables should be allocated to different groups/formations on the battlefield, it is then loaded in the Data Transfer Device (DTD) and then distributed by other means. This is to include the TEK, KEK, and Transmission Security Key (TSK), the latter encrypts the hopset for OTAR. Furthermore, this function shall incorporate the validity date and the number of channels on the crypto net being used for that crypto period. The CMMS Portable Data Terminal type D (PDTD) will assign all key reqrs of COMSEC to specific compartments as per the data specified in the Net Security Plan (NSP)

4. The CMMS site shall receive and store COMSEC keying material for 600 different primary load grouping, as a minimum. All keying mat is received from higher formation CMMS through hand carried disk copy or through an external source via a STUIII.

202.13 Communications-Electronics Operating Instructions (CEOIs)

1. The CEOI is the responsibility of the unit Sig NCO through the Bde Chief Comms Op. The Comms Op makes daily changes and they are issued through the Crypto Clerk to the Sig NCOs. It should be noted that the CEOIs will have a control number located at the top right corner for accounting purposes, and will be destroyed within two hours of supercession.

202.14 Radio Appointment Titles and Fixed Call Signs

1. Radio appointment titles are found in ACP 125 Cansupp 1(B) and are to be strictly adhered to.

2. Annex A provide a list of fixed callsigns for the Tactical Helicopter Squadron as found in ACP 125 Cansupp 1(B) Appendix 9 to Annex B.

3. A Squadron Comd Net Diagram can be found at Annex B.

202.15 Collective Radio Calls

1. A collective call (CC) is a call to all designated stations on a net by the control station. For example, "CC1 this is 0, message. Over". C/s 1,2,3,5, and 8 would then respond, in sequence, with "Send. Over." 0 would pass the message. As another example: CC2 could be for flying helicopters only.

202.16 Flight Following

1. Flight following will normally be done by the Squadron Main CP; however, Flt CPs may be responsible for this function depending on the deployment of the Squadron. That is to say, that if the A echelon has deployed from the B echelon area, then the Flt CP will become responsible to c/s 0 for flight following.

2. Departing or arriving plts will report to the CP immediately prior to start and after shutdown and will:

   a. check with the Duty Ops O/Flt Ops O for any last minute changes to their mission;

   b. file a flight plan showing the intended route, turning points and duration of the flight, or leave a trace with Ops;

   c. complete the CF 773/MMA; and

   d. on completion of the mission, debrief with the IO and Duty Ops O, and complete an INTREP.

3. Pilots shall, whenever possible, contact the CP every 30 minutes with:

   a. c/s;

   b. 30 minute check;

   c. Ops SITREP;

   d. location;

   e. time left on station; and

   f. administrative requirements.

4. When a helicopter is overdue (ETR plus 30 minutes), the Duty Ops O/Flt Duty O shall:

- a. contact the associated Flight to verify that the helicopter has not returned;
- b. check the tasking message, the flight plan and the CF 773/MMA for all available data;
- c. initiate a communications search through all available means;
- d. advise the CO, DCO, S Ops O and Flt Comds;
- e. advise higher HQ of the situation;
- f. contact unit helicopters airborne, and obtain information on their:
  - (1) location;
  - (2) fuel remaining; and
  - (3) operational situation;
- g. advise the Maint Flt Standby Crash Crew;
- h. initiate an electronic and visual search along the flight planned track using available helicopters;
- i. initiate a full scale unit search as required; and
- j. advise higher level rescue agencies as required.

202.17 Airspace Control

1. The control of the helicopters arrival and departure will be done via air control points "S"/"O" for departure and "E"/"I" for arrival. Those points are selected by the squadron main CP or a flight CP when deployed. For the alternate location "SA"/"OA" and "EA"/"IA" will be used. The Flight callsign is to be placed behind the ACP letter (ex. "E2"/"I2" for B Flt) when deployed from the squadron location. These ACPs will be 24 minutes flying time from the controlling CP. Radio communications shall NOT be used inside these points.

202.18 – 202.99 Not allocated

WUSOP 203 ISTAR, COUNTER-SURVEILLANCE, EW AND INT

203.01 Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR)

1. ISTAR is a 24 hour plan comprised of four elements: Intelligence, Surveillance, Target Acquisition and Reconnaissance. It includes counter-surveillance control measures. The CH 146 Electro-optical Reconnaissance, Surveillance and Target Acquisition (ERSTA) kit will be an integral part of the ISTAR system.

203.02 Counter-Surveillance Measures

1. Every commander is responsible for ensuring the local protection of his/her unit or sub-unit at all times. Every unit and sub-unit shall have viable drills for all actions and eventualities that are related to this WUSOP (refer to the counter-surveillance control measures chart at WUSOP 202.07).

2. Counter-surveillance is divided into:

   a. methods used to counter-enemy surveillance (e.g. cam and concealment, counter-recce); and

   b. measures by which commanders impose control of the use of:

      (1) communications equipment by the imposition of Radio Silence (COMMS EMCON);

      (2) non-communications equipment (e.g. radar, lasers, nav aids, IFF, active IR) by the imposition of Electronic Silence (NON-COMMS EMCON);

      (3) white light illumination;

      (4) direct and indirect fire;

      (5) vehicle lights; and

      (6) noise, heat and movement by vehicles and personnel.

203.03 (Not applicable)

203.04 Camouflage and Concealment

1. Every device possible will be used to reduce the possibility of observation of vehicles, defensive earthworks, and personnel by the enemy. The following must be included in any camouflage action:

   a. every vehicle must carry an IR cam net, and sufficient hessian or sacking to cover all shiny parts of the vehicle;

   b. when the vehicle is required to halt, the driver will attempt to find suitable cover. Cam nets will be draped unless the halt is known to be less than 15 minutes;

   c. track plans will be established and strictly adhered to, where possible. Maximum use should be made of existing features such as trails, ditches, and hedgerows; and

   d. the squadron will emphasize track discipline, unless advised otherwise.

2. Natural cover should not be destroyed or removed except for clearing fields of fire. Open fires and exposed light are prohibited during darkness.

203.05 Deception

1. General guidelines for deception are:

    a. plans are coordinated/approved by Squadron HQ and formation;

    b. inform flanking units of the plan and activation;

    c. coordinate plans with flanking units;

    d. do not deflect enemy effort on to flanking units unless specifically ordered by formation HQ;

    e. present same picture to all enemy surveillance means;

    f. do not compromise real codes, locations, frequencies, etc, without authorization of formation HQ;

    g. no deception using radar or radio without authorization of the formation HQ;

    h. do not confuse own forces;

    i. enforce strict 'need to know' until plan is activated; and

    j. deception plans must be credible to the enemy.

2. **Electronic Deception**. Any electronic deception plan must be approved by Sqn HQ, and may need clearance at formation HQ. Plans must conform to the overall tactical plan.

203.06 Electronic Protective Measures (EPM)

1. EPM is used to protect the formation from detection by enemy intercept, jamming and locating systems, and to protect against enemy intrusion onto formation communications nets. All operators and users should be aware of equipment vulnerabilities, and of anti-jamming and loss of contact drills.

2. Wherever possible, maximum use should be made of alternative communications means other than radio. These include the use of land line, dispatch runners, LOs and civilian telephone systems.

3. Consideration must be given to the extent which the formation is dispersed. The ability to work through jamming is enhanced by a tight deployment, which also allows the use of low power transmissions.

4. Radio silence is the best method of EMCON, but its imposition may indicate that movement or important operations are imminent.

5. Control Measures include:

    a. **Net Discipline**:

        (1) proper net operating procedures and net discipline must be enforced;

        (2) operators must keep up-to-date on communications states;

- (3) operators should avoid constant radio checks;
- (4) there must be careful monitoring and supervision of the net to minimize enemy deception; and
- (5) if frequency allocation permits, the control station should order a change of frequency often and at random intervals;

b. **Authentication**:

- (1) enforce correct usage of authentication; and
- (2) challenge when intrusion onto a net is suspected;

c. **Jamming and Deception**:

- (1) expect jamming and deception and know anti-jamming and loss of contact drills;
- (2) whenever possible, maintain one station on the old frequency; and
- (3) guard against attempts at deception and intrusion, and report immediately any occurrence (MIJIWARNREP) by secure means; and

d. **Defence Against Intercept and Direction Finding**:

- (1) radios should be sited using maximum use of terrain features to act as a screen, such as siting antennas on reverse slopes;
- (2) whenever possible, operate using low power;
- (3) to reduce range, keep VHF antennas as low as possible, site HF antennas carefully, and use dummy antennas to tune transmitters;
- (4) keep off the air unless necessary, and then keep transmissions as short as possible; and
- (5) when changing frequencies, change operator, whenever possible.

203.07 – 203.99 Not allocated

WUSOP 204 PUBLIC AFFAIRS

204.01 Public Affairs

1. Public Affairs (PA) must be coordinated at all levels, both in war and peacetime. The Squadron Public Affairs Officer (P Aff O) is required to coordinates his/her activities with the Adjt. The P Aff O has definite responsibilities in relation to the public affairs/public info effort of the force. These are as follows:

   a. liaising with the unit IO;

   b. providing public affairs advice to the CO;

   c. ensuring unit conformity with the formation media plan;

   d. acting as the squadron point of contact (POC) for media visits; and

   e. liaising with local communications and media outlets.

2. Only media accredited by the theatre Formation P Aff O are authorized to function within the AO. Any media representative violating established media ground rules will not be allowed to operate in the AO.

3. Formation P Aff O designated personnel will escort all media personnel. There is no exception.

4. Guidelines for talking with news media personnel include the following:

   a. if you commanded it, did it, or used it, then you can talk about it;

   b. if you do not want it published, do not say it;

   c. always exercise OPSEC;

   d. when directed, the P Aff O conducts review of any material provided for release; and

   f. the P Aff O will not censor material provided for release, but will screen it for OPSEC violations.

204.02 Civil-Military Cooperation (CIMIC)

1. CIMIC is not a squadron responsibility but the unit will normally be implicated in the process. Currently the position of G5 is allocated to the formation HQ as required. This implies that the lowest level at which CIMIC functions should be coordinated is at formation level. There are, however, several key duties, which must be carried out at the unit level.

2. **General Responsibilities**:

   a. specific population control tasks will be assigned to squadrons in the formation Op O; and

b. given the debilitating effect which population movement can have on the conduct of ops, indications of such movement are to be passed immediately, using the SITREP format.

3. **Squadron Responsibilities**:

a. the Squadron CO develops CIMIC policies and designates an LO/PIO for CIMIC;

b. the designated LO/PIO for CIMIC:

   (1) reviews policies, laws, treaties, Canadian and foreign policy, etc.,

   (2) advises the commanding officer's obligation to civil and military authority,

   (3) reviews local customs and laws,

   (4) observes and analyzes trends in public opinion,

   (5) seeks input from local leaders,

   (6) plans positive community relations programs, and

   (7) advises the CO on cultural aspects and considerations in the AO;

c. the S Ops O establishes and maintains a close and continuing relationship with other government agencies that have a responsibility to civilians in the AO. The S Ops O:

   (1) secures a list of applicable agencies,

   (2) determines points of contact,

   (3) determines the mission and area of responsibility of each agency, and

   (4) establishes contact with all agencies;

d. the S Ops O provides liaison to subordinate units, and as required:

   (1) disseminates current CIMIC policy and the commanding officer's guidance, and

   (2) assesses subordinate unit's CIMIC capability; and

e. the S Ops O maintains liaison with local civil authorities by:

   (1) determining and maintaining an interface with key officials,

   (2) determining the degree of support and trust of officials, and

   (3) securing from the Squadron Int Op, any available information on officials.

204.03 – 204.99 Not allocated.

SQUADRON FIXED CALL SIGNS

1. Squadron Call Signs will be allocated IAW ACP 125 CANSUPP – 1(B) table 4B91 (SBG Tac Hel Sqn), as listed below. The letter prefix for helicopters on other formation nets is HOTEL, with JULIET as the alternative.

Appointment	**Call Signs**	**Appointment**	**Call Signs**	**Appointment**	**Call Signs**
Sqn HQ		Maint Flt		Log Sp Flt	
Sqn CP	0, 0A	CP	5, 5A	CP	8, 8A
A Flt CP	1	ac Rep Offr	51	Umpires	80A-N
B Flt CP	2	MRP	52	Supply Section	81
C Flt CP	3	MRP	53	Ambs	83A-C
CO	9	ac Sp Sect	54	TN Sect	84
DCO	9A	AVS Sect	55	A1 Ech	85
Ops O	9B	Flt Comd	59	A2 Ech	85A
SCWO	9C	D/Flt Comd	59A	B Ech	85B
LO	9D			Food Services	87A
Fmn Comd	90			Veh Rec	88
Fmn Air Comd	90A			Flt Comd	89
Sig O	91			D/Flt Comd	89A
Sig Sgt	91A				
RRBs	91B, 91C…				
Adjutant	92				
SOR	92A				
IO	93				
Int Op	93A				
Bde G3 Avn	97				

A Flt Call Signs

Appointment	Call Signs	Appointment	Call Signs
Flt CP	1, 1A	Recce Gnd Party Dets	16, 16A, 16B, 16C
Sections	11, 12, 13, 14	FAC	17
Hel/Pilots	11A-M	Flt Comd	19
Hel/Pilots	12A-M	D/Flt Comd	19A
Hel/Pilots	13A-M	Flight Warrant Officer	19C
Hel/Pilots	14A-M	LOs	19E-G
Maint Sect	15		

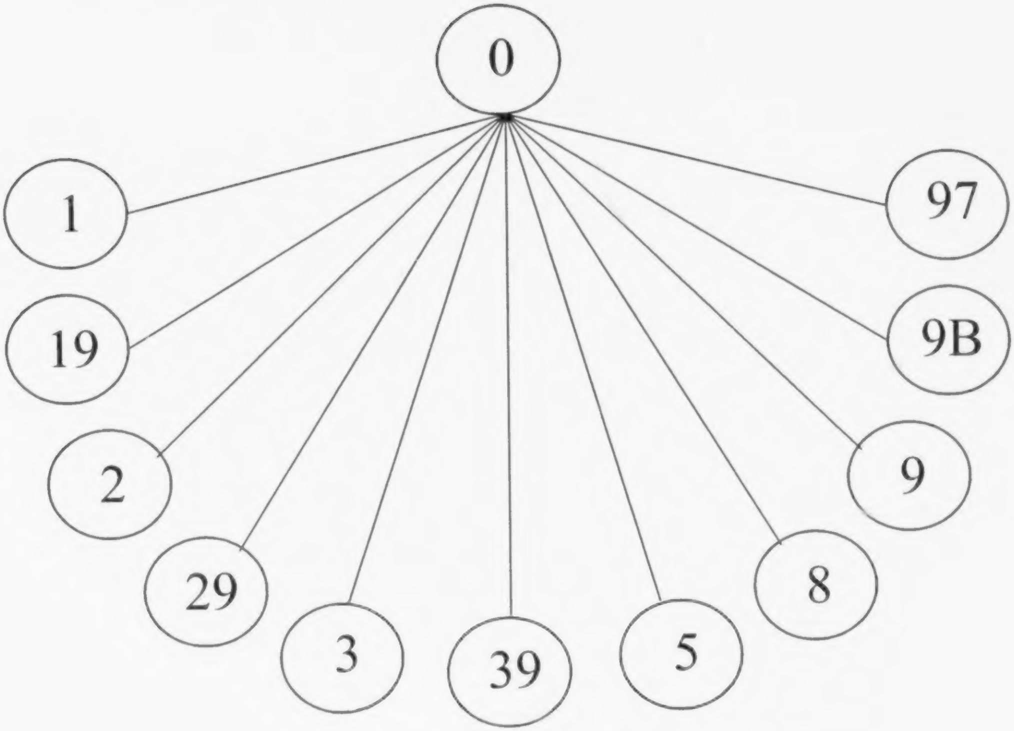
B Flt Call Signs

Appointment	Call Signs	Appointment	Call Signs
Flt CP	2, 2A	Recce Gnd Party Dets	26, 26A, 26B, 26C
Sections	21, 22, 23, 24	FAC	27
Hel/Pilots	21A-M	Flt Comd	29
Hel/Pilots	22A-M	D/Flt Comd	29A
Hel/Pilots	23A-M	Flight Warrant Officer	29C
Hel/Pilots	24A-M	LOs	29E-G
Maint Sect	25		

C Flt Call Signs

Appointment	Call Signs	Appointment	Call Signs
Flt CP	3, 3A	Recce Gnd Party Dets	36, 36A, 36B, 36C
Sections	31, 32, 33, 34	FAC	37
Hel/Pilots	31A-M	Flt Comd	39
Hel/Pilots	32A-M	D/Flt Comd	39A
Hel/Pilots	33A-M	Flight Warrant Officer	39C
Hel/Pilots	34A-M	LOs	39E-G
Maint Sect	35		

SQN COMMAND NET DIAGRAM


0
1
19
2
29
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39
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8
9
9B
97

PART 3

MANOEUVRE

WUSOP 301 REGROUPING

301.01 General

1. Aviation may be regrouped at the discretion of the land force commander to fulfil the commander's intentions. Squadrons or flights may be regrouped to support other formations or units for specific operations, missions or tasks. Regrouping will be defined in the atts and dets section of an Op O. The sequence of moving these aviation resources is detailed at WUSOP 601.

301.02 – 301.99 Not allocated

302.03 – 302.99 Not allocated

WUSOP 303 (Not applicable)

WUSOP 304 (Not applicable)

WUSOP 305 (Not applicable)

WUSOP 306 (Not applicable)

WUSOP 307 HELICOPTER OPERATIONS

307.01 General

1. The aim of this SOP is to provide information on helicopter tasking and FM Homing procedures.

307.02 Tasking Helicopters

1. During operations, a unit that does not have helicopter resources or the appropriate type and quantity of helicopter resources grouped with it, but which requires helicopter support for a specific task or period of time, may request this support using the HELQUEST format found at WUSOP 705.04 and by adopting the following procedures:

a. units should forward HELQUESTs to Bde HQ on the Comd Net. Mission acceptance will be passed back to the requesting unit using the same means by which it was received. The acceptance will normally include such pertinent mission details as Time on Task (TOT), number and type of helicopters and coordinating requirements; and

b. the request for tactical aviation support includes a number that indicates the type of mission. Mission numbers are composed of three parts: a prefix number denoting the type of mission, a letter denoting the formation/unit to be supported, and a serial number (assigned by the brigade group G3 Avn or formation/task force G3 Avn), designated as shown in Figure 3-1:

Electronic Warfare and SEAD	5
Aviation Reconnaissance	6
Command and Liaison	7
Aeromedical Support	8
Other	9
Tactical Troop Lift	10
Logistic Lift	11
Communications Assistance	13
Fire Direction (Air Observation Post, Forward Air Control)	14
Engineer Support	15

Figure 3-1. Helicopter Mission Prefix Numbers

c. **Originator Designators**. When the fmn/TF is assigned to an allied corps, corps HQ will confirm the designators for use in operations. The following letters are not NATO authorized, but will be used within the formation/task force:

(1)	Artillery	E
(2)	Engineer	F
(3)	Aviation	G
(4)	Medical	H
(5)	MP	I
(6)	Other "fmn/TF" troops and attachments	J
(7)	Spares	K to Z

Figure 3-2. Originator Designators

307.03 Immediate Helicopter Request

1. It is accepted that there will be occasions when critical requests for immediate aviation support will arise, such as in the case of mass casualty evacuation. Requests for immediate support follow the same route as do HELQUESTs, however, they are normally passed by radio using an abbreviated format and should normally be given priority over other HELQUESTs.

2. The format for an immediate request is based on the HELQUEST format but only the essential info need be included. Refer to WUSOP 705.05 for format.

307.04 Tactical Helicopter Communications

1. **FM Homing**. All helicopters are capable of finding a unit location by homing on their radio. This procedure is called "Homing". The radio procedure for homing is:

    a. **Helicopter**. "32 this is Hotel 12, transmit 15 seconds for homing. Over"; and

    b. **C/S 32**. "32, ROGER" (ground station keeps transmit button depressed for the requested number of seconds) "32. Out".

2. Whenever CEOIs are issued that include codewords for homing, the codewords will be used, and all other procedures will remain the same. During the no-voice transmission, the pilot will steer towards the unit location. If the pilot requires further directional assistance, the procedure will be repeated. Station passage is difficult to determine and the user unit should advise the helicopter crew of their relative position to the unit location as soon as the helicopter comes into view. When passing directional information to the pilots, give direction from the unit location to the helicopter as follows:

    a. **Example 1**. "Hotel 12 this is 32, you are South of my location. Over"; or

    b. **Example 2**. "Hotel 12 this is 32, you are Northwest 500 m. Over".

3. Visual aids such as flares, smoke, lights or fluorescent panels may be displayed when the helicopter requests. For security reasons the following procedures must be followed:

    a. the ground unit displays the visual aid on request, (usually coloured smoke);

    b. the pilot states the colour seen; and

    c. the ground unit confirms that the colour is correct.

    NOTES:

    (1) Smoke generators should be placed downwind from the LZ; and

    (2) Panels, if used, must be removed from the LZ when the helicopter is on final approach.

307.05 – 307.99 Not allocated

PART 4

FIREPOWER

WUSOP 401 INDIRECT FIRE SUPPORT

401.01 (Not applicable)

401.02 Fire Support Coordination Measures

1. **Definitions and Characteristics.**

   a. **Fire Support Coordination Line (FSCL).** A line established by the appropriate land force commander "usually at corps level" to ensure coordination of fire not under the commander's control but which may affect current tactical operations. The FSCL is used to coordinate fires of air, land or sea weapons systems using any type of ammunition against surface targets. The FSCL should follow well-defined terrain features. The establishment of the FSCL must be coordinated with the appropriate tactical air commander and other supporting elements. Supporting elements may attack targets forward of the FSCL, without prior coordination with the land force comd, provided the attack will not produce adverse surface effects on, or to the rear of the line. Attacks against surface targets behind this line must be coordinated with the appropriate land force comd. The FSCL is marked on all tactical maps by a solid black line showing the date/time of effectiveness and labelled "FSCL";

   b. **No Fire Line (NFL).** Formations may establish an NFL to coordinate fire, which is under the control of their subordinate formations and units. The NFL is a line short of which artillery or ships do not fire, except on request or approval of the supported comd, but beyond which they may fire at anytime without danger to friendly forces. The location of the NFL is normally established by brigade commanders and coordinated at the next higher HQ. NFLs will be plotted on all tactical maps by a solid black line showing the date/time of effectiveness and labelled "NFL". (Note that NATO uses the term FSSL, instead of NFL);

   c. **Restrictive Fire Line (RFL).** An RFL is a line established between converging friendly forces that prohibits fire or effects from fire, across the line without coordinating with the affected force. It will be established by the HQ that controls both forces, based on submissions from them. It is ordered using the same format as for a FSCL. It will be marked on all tactical maps by a solid black line showing the date/time of effectiveness and labelled "RFL"; and

   d. **Fire Coordination Area (FCA).** It will sometimes be necessary or desirable for a commander to restrict fire into an area. A fire coordination area is an area with specific restraints into which fires in excess of those restraints will not be delivered without approval of the authority, which established the restraints. The situation will be especially prevalent in low intensity conflicts where cultural, spiritual or medical facilities will be spared whenever possible. It will be marked on all tactical maps, i.e. a solid red line showing the DTG and labelled FCA.

401.03 – 401.99 Not allocated

WUSOP 402 DIRECT FIRE SUPPORT

402.01 Weapons Data

Ser Wpns and Eqpt	Range	Basic Ld	Maint Ld	Ammo Type	Rate of Fire
(a)	(b)	(c)	(d)	(e)	(f)
C7 (M16A2)	400 m	350 rds per ld	120 rds per ld	Ball, tracer	Normal 5 rds/min, Rapid 20 rds/min
C8 (M16A2 CARBINE)	300 m	350 rds per ld	120 rds per ld	Ball, tracer	Normal 5 rds/min, Rapid 20 rds/min
C9 (MINIMI)	600 m	800 rds per ld	250 rds per ld	Ball, tracer	Sustained 750 to 1000 rds/min
C6 (FN MAG 58) GPMG	1200 m	armd 5060 inf 1760	220	Ball, tracer	Normal 110 rds/min, Rapid 220 rds/min
HMG 50 Cal	800 m - 1200 m			Ball a. Pers 2000 m b. tracer c. C44 AP Anti BMP 800 m	Normal 40 rds/min, Rapid 100 rds/min
C3 Sniper Rifle	600 m	30 rds per ld	5 rds per ld	Ball	
M72 – SRAAW(L)	125 m	3/Trk Veh 1/Wh veh	25 rds	HEAT	Shot disposable
Carl Gustav – SRAAW(H)	300 m	6 rds per ld	2 rds per ld	HEAT	Max 45 rds/min

Ser Wpns and Eqpt	**Range**	**Basic Ld**	**Maint Ld**	**Ammo Type**	**Rate of Fire**
(a)	(b)	(c)	(d)	(e)	(f)
SRAWW ERYX	600 m	12 rds per ld	4 rds per ld	HEAT	1 to 3 rds/min depending on rge (600 m in 13 secs)
TOW II	3750 m	36 rds per ld	12 rds per ld	HEAT	23 rds/min depending on range (3000 m in 15 secs)
Leopard 105 mm	4000 m 2400 m 4000 m			HESH APFSDS SMK	
LAV 3 /COYOTE (25 mm Cannon)	3000 m max eff, vs IFV 1000 m	2400 rds per ld	1200 rds per ld	a. HEI-T , b. APDS VS APC	1 rd/min
Lt MOR 60 mm	HE: w/bipod - 25-1700 m, w/o bipod – 100-700 m, Smk: w/bipod – 25-1450 m, w/o bipod 100-700 m, Illum: w/bipod – 375-1600 m, w/o bipod 300-765 m	64 rds per ld	32 rds per ld	HE	a. Normal - 18 rds/min b. Rapid - 25 rds/min
MED MOR 81 mm	HE/WP 700-5500 m, ILLUM 700-5000 m			HE/WP/ILLUM.	Normal: 20 rds/min 1 min; 15 rds/min 3 mins; Sustained 12 rds/min

Ser Wpns and Eqpt	Range	Basic Ld	Maint Ld	Ammo Type	Rate of Fire
(a)	(b)	(c)	(d)	(e)	(f)
HY MOR 120 mm	1100-8135 m	150 rds per ld	50 rds per ld	150 wpn a. HE, SMK, ILLUM, PRPA (HE WITH RAP) PRBA (ACTILT ARMD)	Normal 18 rds/min for 1 min; 6 rds/min for 3 mins; Sustained - 2 rds/min
MED SP 155 mm	a. 18,000 m b. 23,000 m c. 18,000 m d. 18,000 m e. 18,000 m f. 17,500 m g. TBC h. TBC	450 rds per ld	194 rds per ld	a. HE b. HE RAP c. SMK d. ILLUM 1 Grid square e. VT f. DP ICM g. Scat mins (RAAMS/ ADAM) h. Copperhead	Normal - 3 rds/min for 1 min; 2 rds/min for 3 mins; Sustained 1 rd/gun/ min
LL PT MSL (JAVELIN)	3000 m	10 rds per ld	2 rds per ld	HE	1 rd/min
PT GUN (SKYGARD)	4000 m	675 rds per ld	225 rds per ld	a. HET b. APDST gun c. HE incendiary	550 rds/min
LL AREA MSL (ADATS)	1000 - 8000 m	12 rds per ld	4 rds per ld	HE msl	Not based on distance fired – 4 rds per launcher

Table 4-1. Weapons Data

402.02 – 402.99 Not allocated

WUSOP 403 ALL-ARMS AIR DEFENCE (AAAD)

403.01 General

1. There are two types of AAAD; active and passive. Equipment that may be deployed in the formation or BG areas are classed as SHORAD weapons:

   a. **Area Air Defence**. ADATS and SKYGARD;

   b. **Close Air Defence**. JAVELIN; and

   c. **Self-Defence AAAD Wpns**. MMG, LMG and SA.

2. **Weapon(s) Control Orders** (WCOs). As per WUSOP 109.05 para 2.

3. **Cancellation**. After engagement, weapons revert to the previous WCO. Issuance of a new WCO cancels the previous WCO.

403.02 Active

1. All elements of the unit must be capable of defending themselves against hostile aircraft. This capability is known as "AAAD" and embraces all non-specialists AD weapons used against hostile aircraft.

2. **Countermeasures (CMs)**. CMs include the passive measures described at WUSOP 203 and the active measures described in this WUSOP. Active CMs include:

   a. evasive action; and

   b. aggressive action.

403.03 Passive

1. WUSOP 504 describes the passive measures that should be used by all units to ensure their protection against attack from the air.

403.04 – 403.99 Not allocated

PART 5

PROTECTION

WUSOP 501 NBC DEFENCE

501.01 NBCD Command and Control

1. **General**. Effective NBC Defence (NBCD) procedures will enable squadron and flights to minimize the hazardous effects of NBC attacks, to retain operational effectiveness during such attacks and to ensure rapid recovery of full operational effectiveness after an attack. The fundamentals of NBCD are hazard avoidance, protection (individual and collective) and decontamination. The following NBCD procedures and structure must be adhered to.

2. **Organization**. The squadron will designate an NBCD O who will report directly to the S Ops O. He/she is assisted by an NBCD NCO and one representative from each of A, B and C Flights. Logistics Support Flight and Maintenance Flight will have two representatives each.

3. **Commanding Officer**. The CO must:

   a. consider NBCD related factors while preparing estimates in the planning phase of an operation;

   b. consider the NBC Threat Level (ZERO, LOW, MEDIUM, HIGH);

   c. order the NBC Dress State (MOPP Ready, 0-4);

   d. order the activation of the NBCD Cell;

   e. order the activation of NBCD survey teams and NBCD sentries;

   f. order operational decontamination; and

   g. appoint an S NBCD O and deputy.

4. **S NBCD O**. The S NBCD O is responsible to the S Ops O to:

   a. advise the CO on NBCD matters;

   b. organize and operate the NBCD Cell;

   c. organize and coordinate of the detection, warning, and reporting;

   d. organize squadron NBCD training;

   e. control NBCD equipment;

   f. liaise with flanking units NBCD Os; and

   g. circulate NBC reports as required (NATO Ref ATP 35(A)).

5. **NBCD Cell**. This cell will be activated whenever the threat of an NBC attack exists. It will be comprised of the S NBCD O, the NBCD NCO, and flight representatives. Once activated, this cell must operate 24/7 with at least the S NBCD O or the NBCD NCO present and should be collocated with the squadron CP. The NBCD Cell will be responsible for:

a. reporting the initial enemy use of nuclear, biological; or chemical weapons by the most expeditious means available (NBC1);

b. coordinating the squadron NBC warning and reporting system to higher, lower and flanking formations;

c. coordinating all survey and recce tasking;

d. coordinating squadron and flight operations and complete decontamination;

e. receiving, coordinating and disseminating NBC reports, warnings and alarms;

f. maintaining an up to date display map of NBC attacks;

g. maintaining a record of NBC contaminated areas and routes, and radiation intensities in the squadron AOs;

h. maintaining records of squadron and flight radiation exposure states;

i. forwarding samples of NBC agents to higher HQ; and

j. coordinating NBCD equipment and material resupply.

6. **NBCD Survey Teams**. NBCD survey teams must be capable of performing ground/aerial radiation and ground chemical survey as directed. They will be established on order by personnel from Maint and Logistics Support Flights. Each team will have a minimum of one recorder and one tester and should consist of at least of five NBCD qualified personnel to conduct chemical survey. Duties will include any or all of the following:

a. route and area recces to determine contaminated areas;

b. signing of contaminated areas and safe routes;

c. identifying and sampling of NBC agents;

d. collecting information for the preparation of NBC Reports 4, 5 and 6; and

e. maintaining allotted NBCD equipment.

7. **Ground Surveys**. Ground surveys will be conducted in the following manner:

   a. **Radiological Surveys**. These surveys will be done using a minimum team of two persons (one recorder and one tester) to gather data. Their equipment will comprise:

      (1) Detector Kit, Chemical Agent, M256A1;

      (2) Radiac Meter, Gamma Survey IM 108 B/PD;

      (3) NBC signs; and

      (4) one Tactical Dosimeter IM5013PD per person; and

   b. **Chemical Surveys**. Chemical surveys will be conducted using a team of five personnel; one supervisor NCO and four personnel working in pairs. Their equipment will comprise that identified in CFP 316(12) Annex F, para 6:

      (1) Detector Kit, Chemical Agent M256A1;

      (2) NBC signs;

      (3) CAM;

      (4) probe sticks; and

      (5) Chemical Paper Detector, 3-Way, as required.

8. **Aerial Surveys**. Aerial surveys will be conducted in the following manner:

   a. pilot teams will be capable of carrying radiological surveys as described in CFP 316, Volume 12, Annex G, Para 17; and

   b. at present there is no airborne radiac meter in use for the CF. Aerial survey training will be conducted as soon as a replacement for the AN/ADR 501, Radiac Set, Airborne is issued.

9. **NBCD Decontamination Teams**. NBCD decontamination teams will be established on order for each flight. The team composition will vary in size according to the decontamination required. Their duties will include:

   a. operational decontamination of aircraft, refuellers, CPs, and general duty vehicles; and

   b. supervision of complete decontamination when time and circumstances permit. The squadron will require the assistance of a dedicated decontamination organization, and/or will have to severely curtail operations in order to free up the personnel from within the unit to do a full decontamination.

10. **NBCD Sentries**. Due to personnel shortages in units, one person of a two-person ground sentry team will be designated NBCD sentry when an NBC threat is assessed to exist. NBCD sentries are to warn the unit of suspected or actual presence of NBC agents or hazards.

11. **Individual Responsibilities**. It is likely that the level of NBCD readiness will be increased progressively in stages as the threat increases, however, each individual will:

- a. confirm the state of all items of personal protective equipment and replace deficient or damaged items;
- b. wear protective clothing in the open or closed state, as required by the MOPP;
- c. carry an NBC mask, ready for use;
- d. initiate the use of the NBCW survival rule;
- e. perform NBCD drills as required;
- f. have a full water bottle immediately available at all times;
- g. wear 3-Way Detector Paper;
- h. remain under cover whenever possible;
- i. cover food, water and all items of personal and unit equipment with plastic/tarpaulin to reduce the risk of contamination;
- j. keep a supply of toilet paper in a pocket under protective clothing;
- k. be prepared to act as a unit NBCD sentry as required;
- l. ensure atropine, an extra canister, and CW protective coveralls are carried; and
- m. identification of personnel when in Individual Protective Equipment (IPE) is difficult. The following information shall be provided on the outside of the IPE, in indelible black capital letters on a sheet of 3-Way Detector Paper, placed on the left breast of the CW Coveralls to include:
    - (1) Name and initials of the individual;
    - (2) Rank;
    - (3) Nationality using the approved nationalities code, "CA" for Canada (only for international operations); and
    - (4) Blood group (optional).

12. **Squadron Supply**. Issue of all items of individual clothing and equipment will be made by base supply.

- a. Prior to deploying, the following actions will be taken:
    - (1) issue atropine to individuals and unit Med As;
    - (2) issue decontamination agent (RSDL):
    - (3) check all NBCD equipment and clothing; and
    - (4) issue tactical dosimeters IM 5013PD, one per person; and

b. Equipment and clothing will only be changed on order of flight commanders after approval has been received from the CO. NBC mask filter canisters will be changed, on order, after:

  (1) a blood agent attack,

  (2) a canister filter becomes wet or visibly damaged, or

  (3) the filter offers severe resistance to breathing; and

  (4) CW protective coveralls will be changed, on order, after:

    (a) being soaked by a chemical attack,

    (b) 24 hrs of continuous wear in a chemical environment, or

    (c) becoming unserviceable due to large non-repairable tears.

501.02 MOPP Dress States

1. The prefix "Mission Oriented Protective Posture (MOPP)" will be used to describe the protective dress states or postures for NBCD. The decision on the dress state to adopt will be based on the NBC Threat Level (Low, Medium or High) and hazard information (see Figure 5-2). The MOPP Dress States and their application are summarized as follows:

MOPP [5, 6, 9] DRESS STATES	**MEANING**			
	MASK [7]	**SUIT**	**BOOTS**	**GLOVES**
MOPP [8] READY	Carried	1st set available within 2 hours		
		2nd set available within 6 hours		
MOPP 0	Carried	Available [2]	Available [2]	Available [2]
MOPP 1	Carried	Worn	Carried	Carried
MOPP 2	Carried	Worn	Worn	Carried
MOPP 3	Carried	Worn	Worn	Worn
MOPP 4	Worn	Worn	Worn	Worn

NOTES:

1. So that units can adjust their protection to meet the actual hazard, the Threat Level may be qualified (i.e. HIGH Nuclear Fallout, LOW ROTA TIC).
2. Available. Capable of being used; at one's disposal; within one's reach.
3. Ready. With preparations complete, in a fit state.
4. Occupy. If the tactical situation permits.
5. The MOPP level of a particular area will be decided by the appropriate commander after consideration of the local threat, meteorological conditions and mission/task of the unit(s) concerned.
6. "Mask Worn" can be added to MOPPs 0-3. Masking shall be ordered when warned of arrival of CW/BW agents or position is under attack. In addition, recognizing risk management the suffix "Suit Open" can be added to MOPPs 1-3; together with any other adjustments needed to meet local conditions.
7. The term "mask" includes any form of respiratory protection against nuclear, biological or chemical hazards.
8. For airmobile, airborne and light forces.
9. Aircrew fly at one MOPP state, higher than the current ordered state.

Figure 5-1. MOPP Dress States

501.03 NBC Threat Levels

1. The NBC threat levels are defined as follows:

Ser	Threat Level	Threat Description	Hazard	Physical Protection		Collective	Cover
				Respiratory	Whole Body		
1	ZERO	The enemy has no known offensive NBC capability.	Nil	Available^2	Available^2	Available^2	N/A
2	LOW	The enemy has an offensive NBC capability, but there is no indication of its use in the immediate future.	Specify whether: N – Strike, fallout or ROTA LLR B – Aerosol or ROTA TIB C – Persistent, Non-persistent or ROTA TIC	Command decision based on risk assessment. (See Figure 5-1. MOPP Dress States)		Ready^3	Plan
3	MEDIUM	NBC weapons have been used in another area of operations and/ or there are strong indications that the enemy will use these weapons in the immediate future.				Switch On	Prepare
4	HIGH	NBC attack is imminent.				Occupy^4	Occupy^4

NOTES:

(2) Available. Capable of being used; at one's disposal; within one's reach.

(3) Ready. With preparations complete, in a fit state.

(4) Occupy. If the tactical situation permits.

Figure 5-2. NBC Threat Levels

501.04 Drills And Procedures

1. All personnel must be fully conversant with the following drills:

   a. **Immediate Action (IA) drill**:

      (1) don the NBC mask; shout "GAS, GAS, GAS!";

      (2) get under overhead cover;

      (3) check detector paper; and

      (4) confirm nature of the attack:

         (a) if skin is contaminated, conduct immediate decontamination drill, and

         (b) if you feel the effects of nerve agent, self-administer atropine;

   b. **Immediate Decontamination (ID) drill**:

      (1) remove Reactive Skin Decontamination Lotion (RSDL) from packaging;

      (2) undo the hood on the CW protective coveralls;

      (3) take a few deep breaths, hold last one;

      (4) push the hood to the rear;

      (5) Unmask. Keep eyes closed (hold mask in gloved hand);

      (6) rapidly decontaminate with RSDL in following order:

         (a) face, and

         (b) ears and neck;

      (7) blow out mask, re-don on face and replace hood;

      (8) decontaminate as necessary; and

      (9) replace 3-Way Detector Paper on CW protective coveralls;

   c. **Unmasking drill**:

      (1) Only the CO can order unmasking. It will only be ordered after testing with the M256A1 detector kit, CAM, and NAVD has been conducted and no hazards are present. Once the tests have been completed the CO will choose an individual to perform the unmasking drill. The drill will be done as following:

         (a) break the mask seal for 10 seconds, sniff for suspicious odours. If present, or if effects occur, mask and report the reason for re-masking; and

        (b) if no effects or suspicious odours, unmask completely for five minutes. During this time the individual is to be closely monitored for effects and is to re-mask immediately if effects are noticed. Once satisfied that all is safe, the CO will order "GAS CLEAR"; and

d. **BCW Survival Rule**. Employ the BCW Survival Rule when ordered, or when:

    (1) **A** rtillery or other bombardment is experienced;

    (2) **R** aids or hostile acts are made by aircraft against your unit;

    (3) **O** dours, liquids or solids, which are suspicious are detected;

    (4) **U** nusual bomblets or missiles are seen;

    (5) **S** moke or mist from an unknown source are present; or

    (6) **E** ffects on body or on others are noticed, such as:

        (a) **D** imming of vision;

        (b) **I** rritation of eyes;

        (c) **S** udden headache;

        (d) **T** ightening of the chest; and

        (e) **R** unny nose;

        (f) **E** nemy bombardment of any kind or the approach of an aircraft;

        (g) **S** uspicious liquid, smoke or odour; and

        (h) **S** trange action or irrational behaviour from other personnel.

501.05 Friendly Nuclear Strike (STRIKEWARN)

1. In the event of a friendly nuclear strike, the words "DAZZLE, DAZZLE, DAZZLE" will be passed at the time on target (TOT) minus 5 minutes. The squadron main CP will then warn flights in the nuclear zone. Flights will then ensure that all their personnel and aircraft take appropriate protective action. The squadron main CP will normally receive a strike warning message, part, or all of which may be passed to flights depending on the tactical situation. A time check will follow all warnings.

2. The following drill will be completed by all vehicle and aircraft crews:

    a. position vehicle/aircraft behind cover, pointed in the direction of blast;

    b. sights and optics protected;

    c. antennas removed, where possible;

    d. electrical equipment should be turned off until TOT plus 2 minutes;

    e. all doors closed;

f. all internal stowage secure;

g. master switch and all constant power circuits off; and

h. crews brace themselves and close their eyes.

3. **Requirements After Friendly Nuclear Strikes**. After any NBC attack, flight Commanders will take the following action:

a. review the tactical situation;

b. reorganize as necessary;

c. assess casualties to personnel and equipment;

d. send a SITREP to the Sqn Main CP; and

e. NBC reporting as per WUSOP 704, Section 3.

501.06 Contamination Control

1. Pre-attack plans and procedures are designed to avoid personnel and equipment becoming contaminated where possible. These are to include:

a. **Hazard marking**:

  (1) Orders for marking hazards;

  (2) provision and checking of hazard marking signs; and

  (3) coordination of NBC hazard marking and NBC reconnaissance teams.

b. **Use of Cover**. Where possible, personnel, equipment and stores are to be placed under cover (Mylar if available) to prevent direct contamination, should an attack occur. Cover gives protection from radioactive dust and most liquid biological and chemical agents. Chemical vapour in field concentrations is unlikely to cause contamination;

c. **Route Planning**. Track plans are to be laid down designating routes where post-attack contamination pickup is least likely. These will be along roads or vegetation free tracks. Such tracks will require a recce to check for contamination, particularly solid contamination that is not absorbed into the surface;

d. **Collective Protection**. When the tactical situation permits, shelters should be prepared for the collective protection of personnel. Each shelter should be provided with:

  (1) external sentries to control entry of personnel;

  (2) shuffle box (bleach/dirt);

  (3) Detector Kit, Chemical Agent M256A1;

  (4) Radiac Meter, portable, high range, IM10881PD; and

  (5) Radiac Meter, portable, low range, IM50161PD; and

e. Collective protection shelters, when available, will be used for:

  (1) CP;

  (2) rest;

  (3) eating;

  (4) ablution;

  (5) defecating; and

  (6) storage of aircraft electronics and other delicate parts.

3. **Radiation Exposure State (RES) Control System**. The CO must be aware of the RES of the squadron personnel in order to anticipate casualties, obtain replenishment and plan future operations. Personnel should be rotated where possible, to prevent overexposure of any particular group. All personnel will have their personal dosimeter DT60 A/PD read whenever the tactical situation and time permits. Between readings the CO will depend largely upon the absorbed radiation recorded on the 5013PD tactical dosimeter to determine squadron RES. The 5013PD will be issued to all officers and down to crew level and will enable the CO to obtain a quick estimate of radiation doses received. RES dose levels and their probable effects on operational capability are assessed as follows:

Total Cumulative RES Dose (Rads)	**Category**	**Probable Operational Impact:**
0 Rads	0	None
1-70 Rads	R1	Slight decrease in combat effectiveness in up to 5% of group.
71-150 Rads	R2	Decrease in combat effectiveness in up to 25% of group. Up to 5% of group expected to become combat ineffective.
Over 150 Rads	R3	Groups not able to perform complex tasks. Sustained efforts hampered. More than 5% will become combat ineffective, increasing with increased dosage

NOTES:

1. Combat ineffectiveness occurs at onset of severe radiation sickness.

2. Rule of Sevens. For every sevenfold increase in time following a burst, there is a tenfold decrease in dose Rads.

501.07 Limitation of Spread

1. Contaminated areas should, if possible, be avoided, but if personnel are required to remain in or pass through them, they should act as follows:

   a. use vehicles whenever possible to reduce the risk of contamination of overboots and clothing. Windows of soft skinned vehicles shall be closed and tarps shall be rolled down. For tracked and AFVs all hatches shall be closed. Detector paper must be placed on all vehicles so that the driver and/or vehicle commander can see the paper;

   b. avoid unnecessary contact with contaminated surfaces which tend to retain chemical agents;

   c. avoid stirring up dust. Marching Single file into wind is to be avoided;

   d. personal sleeping kit is not decontaminable and should be laid on impermeable material to prevent ground contamination. If the site is in the open the kit should similarly be covered to prevent contamination from a surprise liquid attack;

   e. if gloves must be removed in order to perform a task, decontaminate object that must be touched or touch only uncontaminated surfaces;

   f. assume all personnel, mats and vehicles are contaminated; and

   g. decontaminate all food and water containers before eating or drinking.

2. At unit level, limitation of spread can be achieved primarily through control of movement into and out of contaminated areas. The following measures should be taken when a move is being conducted in an area known or suspected to be contaminated:

   a. check all personnel, vehicles, and supplies for contamination prior to entering unit/formation areas;

   b. identify NBCD sentries and survey teams for railroad and road moves;

   c. survey routes, hides, battle positions etc. for possible contamination;

   d. avoid moving through a contaminated area if possible; and

   e. mark contaminated vehicles, personnel, equipment and areas.

3. When forced to cross a contaminated area, all vehicles will halt at least 500m short of the contamination, close all doors, windows and crews will don masks. Soldiers on board open vehicles and aircraft will assume MOPP 3 mask. When the move commences, the following precautions should be taken:

   a. extend interval to 125 m and slow to 8 kph;

   b. improve shielding if time and material permits;

   c. avoid brushing under trees or driving through puddles;

   d. assume a wedge or staggered formation, do not follow directly behind any other vehicle and avoid any dust or debris that is thrown up;

e. after crossing the area, personnel in MOPP 3 mask will check for contamination; and

f. based on the contamination present and the tactical situation, the commander may decontaminate, continue operating closed down, or conduct the procedure before unmasking, give the "ALL CLEAR" and continue the mission.

4. **Weather and Decay**. NBC contamination is reduced passively and progressively by the weathering of biological and chemical agents and by the decay of nuclear radiation. Before an attack, plans must be made designating equipment and stores which, if contaminated, will be left either to weather or until the radiation has dropped to acceptable levels.

501.08 Marking Contaminated Areas

1. When an area has been contaminated, the unit responsible for that area will be required to post the NBC contamination signs, not only for its own safety but also to prevent the risk of unnecessary exposure to other units or to those individuals who might unknowingly enter the area.

2. The standard marking signs as prescribed at by STANAG 2002 will be used.

3. Areas that contain more than one type of contamination will be marked with all relevant marking signs. Signs will be placed on the perimeter of the contaminated area close enough together to prevent unintentional entry. Markers will be left in place if the area is evacuated before contamination becomes insignificant unless the area is to be abandoned to the enemy.

501.09 Decontamination

1. Decontamination is a measure of last resort to be taken only when avoidance, limitation of spread and weathering and decay are unsuccessful in avoiding contamination.

2. There are three categories of decontamination:

a. **Immediate Decontamination**. Performed by the individual, using equipment and resources immediately available, to enable them to remove gross contamination from the body, clothing, equipment and personal weapon;

b. **Operational Decontamination**. Performed using unit equipment to reduce contamination to a level that will allow current operations to continue. As a minimum, the contact areas of weapons and equipment required by the immediate situation will be decontaminated; and

c. **Thorough Decontamination**. Performed with assistance from a specialized unit to completely eliminate or neutralize the hazard to personnel, clothing, equipment, weapons, vehicles and supplies.

3. **Immediate and Operational Decontamination**. Immediate and operational decontamination is a unit responsibility, to be carried out without assistance of a formation/TF HQ. The conduct of thorough decontamination within the formation/TF is the responsibility of the formation/TF HQ.

4. The S NBCD O will control operational decontamination via the unit NBCD Cell.

5. **Thorough Decontamination**. The formation/TF Supply Company Laundry, Bath and Decontamination (LBD) platoon is tasked to provide decontamination support to all elements of the formation/TF undergoing thorough decontamination. User unit will be responsible to:

a. provide augmentation as tasked by higher HQ;

b. site and control the initial assembly area;

c. site and control the final assembly area; and

d. provide an LO.

6. **Immediate and Operational Decontamination Guidelines for Aircraft**. See B-GA-442-001/FP-001, *Tactical Aviation TTPs*, Chapter 13.

501.10 Handling and Treatment of NBC Casualties

1. The procedure for the handling and treatment of chemical poisoning casualties follows:

a. Restoration of respiratory protection: if the casualty is unmasked, mask the casualty; and

b. Detection of chemical poisoning:

(1) Detect chemical agent (detection equipment); and

(2) Note the casualty's condition:

Pupil size	Breathing	Burning skin
Pulse	Twitches	Excess secretions

2. **Treatment of Chemical Poisoning**. If the CW protective coveralls are torn, decontaminate the tear/wound and cover with IPE wrapping (plastic) or a bandage cover.

Agent	Signs/Symptoms	Treatment
Nerve	Small pupils Headache Difficulty breathing Dimming of vision Excess secretions Convulsions	COMBOPEN. Max 3 at 15 minute intervals Artificial respiration, if necessary Evacuation
COMBOPEN overdose	Agitation Hot dry skin Large pupils Fast pulse	Strict rest in shade Keep cool Drink fluids
Blood	**Mild** Headache Nausea Dizziness **Severe** Breathing stops Convulsions	Artificial respiration, if necessary Evacuation
Choking	Coughing Choking Nausea Watering eyes	Put in Casualty bag without respirator Strict rest Evacuate as a stretcher case
Blister	Painful/watering eyes Burning/painful skin Choking	Flush eyes with water (ONLY if within 5 mins) Decontaminate suspected areas/blisters Dry dressing Evacuation

501.11 NBC Monitoring

1. **Radiological Monitoring.** During medium or high threat levels, a radiological watch is maintained as follows:

   a. radiac meters in each flight are checked hourly (when flights are collocated, this could be done by one flight);

   b. all monitors will switch to continuous monitoring:

      (1) five minutes before the time given for a friendly nuclear strike;

      (2) when an enemy strike is observed or reported;

      (3) when moving; and

(4) when fallout is anticipated, when the fallout warning has been given, or when readings in the unit area are above 1 rad/hr; and

c. the continuous monitoring will be discontinued IAW higher when readings in the unit area drop below 1 rad/hr.

2. **Chemical Monitoring**. During medium or high threat levels, a chemical monitoring watch is maintained as follows:

a. automatic detectors and alarms will be positioned in accordance with the formation plan and will be operated continuously (if available);

b. chemical detector paper will be worn by all personnel and placed on the exterior of all vehicles;

c. detector paper will be placed in sentry position; and

d. detector kits will be deployed to confirm the presence or absence of chemical agent vapour.

501.12 – 501.99 Not allocated

WUSOP 502 PASSWORDS AND CHALLENGING PROCEDURES

502.01 Passwords

1. **Passwords**. Passwords are issued by theatre HQs and disseminated by squadron HQs through the brigade G2. They consist of a challenge bigram and an answer bigram (i.e. Challenge AA, Answer GG) and it changes daily at 1200 hrs local.

2. **Compromise**. If a password is compromised, inform the local commander as quickly as possible.

3. **Limitations**. Passwords are only one indication of positive identification. Other methods of confirmation for identity are:

a. visual recognition;

b. ID cards (add evidence, not proof); and

c. questioning.

502.02 Challenging Procedures

1. Procedure for Challenging and Replying STANAG 2042:

Action or Challenge by Sentry:	**Action by Person Being Challenged:**
"Halt! Hands Up!"	Halt and give any reply, which indicates the person or group is or are authorized to pass.
"Advance (one) and be Recognized!"	Person or group leader advances without replying.
"Halt!" When unknown has approached sufficiently for sentry to recognize or challenge	Person halts until recognized by sentry.
"Challenge" (If any) is given in a low tone.	Reply or password is given in a low tone.
"Advance another one (or remainder) and be recognized!" Sentry calls forward remainder one by one or as a group, as the situation or orders demand.	Second unknown, (or remainder) advance at order of sentry to be recognized. Group leader, or person designated by leader must remain with sentry to assist in identification of remainder of group.

2. **Opening Fire**. All ranks must carry and adhere to the relevant orders for opening fire contained in the Rules Of Engagement.

502.03 Codewords/ Nicknames/ Passwords

1. The use of codewords and nicknames within the squadron/brigade is governed by national instructions. It is essential that codewords and nicknames are not made up or used without authority. To do otherwise could lead to serious consequences.

2. The Bde G2 (through Ops O) will generate all codewords and nicknames to be used within the squadron. The Bde G2, prior to each operation, will issue them to squadrons singly or in blocks.

502.04 – 502.99 Not allocated

WUSOP 503 EMERGENCY ALARMS

503.01 Combat Alarms

Warning	**Ground Attack (1)**	**Air Attack**	**NBC Agents**	**Air and NBC Clear**
Colour and Shape	N/A	Red	Black NBC Wng Rkt **(2)**	Remove/change visual signals
Visual Signal	N/A	Rapid crossing and uncrossing of Arms above head	Mask Up	
Audible Alarm **(3) (4)**	Long blast on vehicle horn or whistle (10 secs), and word of mouth	Voice (e.g. Air Red!) Repeated blasts on vehicle horn/whistle (3 secs on 1 sec off)	Voice (Gas, Gas, Gas!) Bang metal on metal	Voice Horn blast for 1 minute
NATO (Civ Def)		Warbling siren for 1 minute	Interrupted warbling siren	Steady siren for 1 minute

NOTES:

(1) Alarms for ground attack to be in accordance with the tactical situation.

(2) Air Raid warning states:

- a. **Red**. Attack imminent;
- b. **Yellow**. Attack probable; and
- c. **White**. Attack unlikely.

(3) Do not confuse with whistle signal for stand-to. There is no NATO agreement on the signal for a stand-to. If a whistle or a horn signal is necessary, use one continuous blast.

(4) Use visual signals if possible.

503.02 Fire Alarm

1. The fire alarm is sounded immediately upon discovering a fire by:
    - a. shouting "FIRE, FIRE, FIRE!" and, if able; and
    - b. sounding the siren at the nearest fire point.

503.03 – 503.99 Not allocated

WUSOP 504 INDIVIDUAL AND SQUADRON PROTECTION MEASURES

504.01 Protection When Static

1. **General**. The squadron must be able to protect itself against infiltration by small enemy groups, whether they are saboteurs, guerrilla forces, or airborne assault. To do this, the squadron must be aware of the threat so it can anticipate and prepare for possible attacks. It must be kept in mind that enemy priorities will be to destroy the aircraft, command posts and refuellers. Squadron defence plans must therefore anticipate these threats. Protective measures must be continuous and it is the responsibility of each individual to be constantly alert and vigilant. Anything out of the ordinary must be questioned or challenged. Knowledge of FSOPs and good personal discipline is essential for effective defence.

   a. **Flight Responsibilities**. Each flight is responsible for its own area and the assignment of arcs of fire. The DCO and SCWO are responsible for assigning areas to the flights. If the echelons are deployed, individual flight commanders or detachment commanders shall form their own defence organisation mindful of the principles contained in this SOP. In addition, a squadron defence group is commanded by the SCWO and will be formed when the squadron is collocated; and

   b. **Defence Group**. The defence group consists of two sections, A and B. Each section is commanded by a Sgt and comprises four Cpl/Ptes. The personnel for A section are provided by Maintenance Flight, while the personnel for the B Section are provided by Log Support flight. The Maint Flt and Log Sp Flt Comds are responsible for providing the names of the defence group personnel to the SCWO as soon as designated and immediately following any changes. When the two sections are combined, the SCWO commands both groups, while the NCO i/c A section assumes 2 i/c of the defence group. When an alarm is raised, both section commanders shall report to squadron Main CP to receive orders. Defence group members will report as ordered, in fighting order including personal weapons. Communication devices will be issued to each section as the situation dictates.

2. **Basic Drill**. When occupying a new position, the basic drill comprises the following:

   a. take cover;

   b. mount sentries;

   c. check area for mines, etc;

   d. clearance patrols; and

   e. practice stand-to procedures.

3. **Alert States**. Once a position has been occupied, the commanding officer will order an appropriate alert state. Details of each of the alert states comprise the following:

a. **Green Alert (Day only)**:

(1) NCO i/c defence group is briefed;

(2) squadron control point is manned (2 personnel);

(3) one roving sentry patrol (2 personnel);

(4) Observation Posts manned; and

(5) one person on radio watch in each flight CP;

b. **Amber Alert (Minimum for night protection)**. Comprises all of the elements of the green alert as well as:

(1) two roving sentry/fire piquet patrols;

(2) aircraft pre-flighted; and

(3) stand-to if required; and

c. **Red Alert**:

(1) squadron commander assumes command of unit protection;

(2) 100% stand-to;

(3) vehicle and aircraft crews mounted and ready to move; and

(4) await the decision to evacuate (bug-out) aircraft.

4. **Sentries**. Sentries will always be posted at night and during a period of alert and must remain under cover, silent and alert at all times while walking pickets. Sentries will always be posted in groups of at least two and will never leave their post unless ordered. One may leave to awaken replacements while the other stays on picket. Smoking on duty is NOT permitted. Each group should be equipped with portable radio or telephones and will report to the squadron main CP at regular intervals. In the case of artillery fire, one sentry will wear NBCD equipment including the mask. Members of the defence groups should not serve as sentries.

5. **Briefing to Sentries**. The following information must be briefed from the Main HQ to each sentry:

a. sentry location and directions to that location;

b. location of known enemies;

c. arc(s) of observation/fire;

d. location of other squadron sentries;

e. confirm knowledge of passwords and Challenging and Replying procedures;

f. ROEs;

- g. inform sentry of scheduled visitors; and
- h. timings and details of replacement sentry.

6. **Sentry Action During Enemy Contact**:

- a. enemy bypassing the squadron location
  - (1) observe and report; and
  - (2) fire only if ordered.
- b. enemy advancing towards the squadron location
  - (1) observe and report;
  - (2) use Challenge and Reply procedures; and
  - (3) observe ROEs.

7. **Stand-to Procedure**. "Stand-to!" is the verbal order placing the entire unit on alert at their designated defence positions. This order may be given at anytime but will automatically come into effect when first occupying a new position, when attacked by ground forces, and when warned of a specific threat. All activities including smoking and open fires will cease. All vehicles and generators will be shut down during a stand-to:

- a. for ground attacks, designated aircrew will man aircraft and maintain listening watch. All flight CPs will be on the squadron net and maintain radio contact; and
- b. a scaled stand-to may be ordered when a heightened defensive state is required, but might be required for an extended time, or significant activities such as departure preparations must be carried out. When the CO orders a scaled stand-to; Flight Commanders are responsible for ensuring that their respective areas are manned appropriately. Specific direction will be given to the NCO i/c defence group and emergency aircrew.

504.02 Protection During Crash Moves

1. **Crash Move**. The threat of capture or destruction at the hands of the enemy, may necessitate the immediate movement of the squadron to the alternate location. Despite its urgency, a crash move is still a controlled deployment. The guiding principle for any crash move is to relocate as quickly as possible while maintaining a high state of operational efficiency throughout. When the decision is made, the order "Crash move in x minutes" or "Crash move now" will be issued by the Squadron Main CP. All flights will prepare to move on issuance of the warning order, or will move as the situation dictates. The priority for the evacuation is as follows:

- a. personnel;
- b. personnel and crew served weapons;
- c. helicopters;

- d. vehicles and aircraft servicing equipment;
- e. communications equipment, including antennas;
- f. power systems; and
- g. personal kit/stores.

2. **CP Response During A Crash Move**. On the order "Crash Move Now", the S Ops O will order the aircraft to be Bugged-Out when necessary, and will action the Step-up procedures (see WUSOP 104). The Recce Group/Advance Party will depart in accordance with the following responsibilities:

- a. **Operations**:
  - (1) bug-out aircraft, if required, dispatch Step-up CP or pass control to the alternate CP and advise flights of the Crash Move;
  - (2) advise the higher HQ of the situation; and
  - (3) advise the remaining echelons of the Crash Move, if required, and issue instructions to ensure continuity of squadron support, particularly at the Crash RV site;
- b. **Flights**:
  - (1) disseminate information regarding location of the Crash RV and alternate location, and
  - (2) issue executive order to move;
- c. **DCO/SCWO/Sig NCM**:
  - (1) proceed immediately to alternate location and be prepared to receive squadron elements as they arrive via the Crash RV, and
  - (2) coordinate the defence of squadron elements at the alternate location;
- d. **S Ops O**. Proceed immediately to the Crash RV and commence reconstituting the squadron and assessing the extent of damage; and
- e. **Log Sp Flt Comd**. Dispatch a Mobile Repair Team (MRT), recovery and medical assistance as soon as possible to the Crash RV to provide assistance.

3. **Crash RV**. The Crash RV is the location where the squadron regroups after having bugged-out of a location. It is normally sited within 5 kms of the main squadron location and would provide First Aid to wounded as required, limited vehicle replenishment and recovery, assess the damage to the squadron's operational capability, and plan for the occupation and defence of the new squadron location. The Crash RV will be marked on all squadron main CP maps and supervisors will ensure all personnel are aware of its location.

4. **Crash Move and NBC Contamination**. Once regrouped at the Crash RV, the squadron will hold until the nature and level of contamination is determined. The higher formation HQ shall be notified and arrangements for a decontamination unit will be made, if required.

5. **Bug-Out Procedure**. The following evacuation procedure is for emergency deployment of aircraft when an imminent danger of attack exists and/or a stand-to, has to be ordered:

a. **Crew Assignment**. When deployed in the field, aircraft shall be assigned an emergency crew at all times. During an alert, those crews will proceed immediately to their respective aircraft with the appropriate seasonal survival equipment;

b. **Aircraft Preparation**. All pre-start checks will be completed;

c. **Notification of Bug-Out**. The FE of the aircraft closest to the flight CP shall remain in the CP to monitor the situation. Once the order to bug-out is given, the FE will proceed immediately to his/her aircraft and notify the aircraft captain. The illumination of the anti-collision light during the start-up procedure will signal the other aircraft on the flight line that a bug-out has been ordered. The helicopter will then proceed to the RV Bug-Out location and wait for others;

d. **Listening Watch**. Crew members from all aircraft shall maintain a listening watch in their aircraft as well as monitoring the perimeter of the flight line. Any indication of an enemy breach of the perimeter shall be passed to the flight CP. When the aircraft power is being switched on, caution should be exercised not to turn on the anti-collision lights as that is an indication that a bug-out has been ordered; and

e. **Stand Down**. An order to "Stand Down", will be passed to each helicopter by runner.

504.03 – 504.99 Not allocated

WUSOP 505 MINE WARFARE

505.01 Marking

1. During war operations, all minefields must be marked by the following:

a. fence the minefield on all sides. Use existing fences, single concertina or waist high single strand wire. Existing fences may be used where suitable;

b. the fence will not conform to the shape of the minefield nor give away its extent. It will always enclose some unmined ground;

c. the fence (on the enemy side) will not be obvious but must be visible to those who know its approximate position; and

d. all fences, existing or emplaced, are to be marked with signs to show their nature. Fasten red triangular markers, some inscribed 'MINES' (in white) to the fence at a maximum of 50 metre intervals.

505.02 Reporting and Recording (STANAG 2430)

1. **Enemy Minefields**. All enemy minefields are to be reported in the appropriate MINEREP format.

2. **Scatterable Minefield Reporting**. Due to the rapid decision-making process inherent to scatterable mine operations, the need to warn troops and report delivery is of utmost importance. The process of passage of information with respect to scatterable mine reports will follow the following sequence:

a. **Warning (SCATMINWARN)**. Used to warn friendly troops if the use of scatterable mines is being considered in friendly areas and such use may create a potential threat to friendly operations;

b. **Reporting (SCATMINREP)**. To be issued by the delivery/laying unit immediately after completion of the scatterable minefield laying; and

c. **Recording (SCATMINREC)**. To be used to disseminate information on the employment of scatterable mines both by enemy and friendly forces. This information is to be reported by observers (i.e. enemy scatterable mine artillery) or by delivery/laying units. More detailed information can be reported through an ENGREP.

505.03 Marking of Routes Through Minefields

1. **Marking**. Minefield lanes will always be marked, but the method of marking varies according to the tactical situation. The marking is constructed in sequence, from initial marking, to immediate marking and finally to full marking as operations develop, in accordance with STANAG 2889 or QSTAG 742, *Marking of Hazardous Areas and Routes Through Them*. The marking itself will comprise the following:

a. **Day Marking**:

(1) a fence similar to the perimeter fence; and

(2) red and white pointed markers affixed to alternate pickets in the fence, with the white point marked toward the lane; and

b. **Night Marking**. At night the fence will have green and white lights fixed to the markers as follows:

(1) at the entrance and exit, two green lights fixed in the centre of the markers; and

(2) in the lane, one white light fixed on the top of the marker.

505.04 Not allocated

505.05 Units Out of Immediate Contact or in Rear Areas

1. If devices are encountered in rear areas or by units that are out of immediate contact, the following actions will be taken if a move through the area is necessary:

   a. an engineering plant or a Main Battle Tank, with blade, is to lead each column;

   b. move only on roads and tracks and where mines will be easily visible;

   c. if an engineering plant is not available, remote disturbance may be necessary to explode any anti-disturbance fuses that might be fitted to some mines (usually about 20%). Some methods include:

      (1) civilian snow ploughs;

      (2) a snowplough fitted to B vehicles;

      (3) a road sweeper;

      (4) a long pole;

      (5) hand-tie a rope to the mine, take cover and pull the rope from outside of the minimum safety distance of 50 m; and

      (6) small arms fire.

505.06 – 505.99 Not allocated

WUSOP 506 DOWNED AIRCREW/ AIRCRAFT RECOVERY

506.01 General

1. The objectives of Downed Aircrew/Aircraft Recovery are to save lives, prevent further damage to property and to safeguard evidence. It comprises two parts: Combat Search and Rescue (CSAR) procedures, and Crash Response procedures. CSAR is aimed at the tactical recovery of downed aircrew and isolated personnel. The Crash response procedure is a non-tactical response to an incident that involves an aircraft having to make a forced landing that may entail an accident. CSAR procedures are detailed in B-GA-442-001/FP-001, *Tactical Aviation Tactics, Techniques And Procedures*. This SOP concentrates mainly on the non-tactical response to a downed aircraft.

2. The priority of tasks in the event of an aircraft crash comprise the following:

   a. preservation of life;

   b. treatment and evacuation of personnel;

   c. prevention of further damage;

   d. preservation of the crash site; and

   e. recording of pertinent information to include:

      (1) the gathering of facts;

      (2) names, addresses and statements of witnesses;

(3) taking fluid samples from the aircraft;

(4) drawing a diagram of the crash site and taking measurements;

(5) taking photos of the crash site; and

(6) coordinating the actions of all personnel present to provide as much information to the investigating team as possible.

3. A rapid and closely coordinated response is essential to ensure the success of Paras 2.a. and b. The tactical situation will determine how thorough tasks at Paras 2.c.-e. will be able to be carried out.

506.02 Responsibilities

1. **On-Scene Commander (OSC)**. The OSC will initially be the senior military person present at the scene of the crash. That member will be replaced by SAMEO/ATC O or by the Flight Commander or D/Flight Commander and, if required, by the UFSO, CO, DCO or another officer appointed by them. The OSC shall coordinate the efforts of all personnel on-scene to accomplish the tasks listed at WUSOP 506.01, Para 2.

2. **UFSO**. The UFSO shall maintain and deploy a field Flight Safety Kit. The kit shall be stored in the squadron main CP. The UFSO shall assume the duties of OSC on order and will assist in the crash response and aftermath as required.

3. **Maintenance Flight**. The Maint Flight shall maintain and deploy a crash rescue kit on a trailer. On notification of a crash, the SAMEO shall report to the Sqn Main CP for Orders and on order:

a. deploy the crash trailer and necessary equipment and personnel to the crash site by vehicle or by helicopter. The crash trailer can be towed or its contents slung, if required; and

b. impound and quarantine items as required in accordance with A-GA-135/AA-001, *Flight Safety For The CF*.

4. **Med A**. On notification of a crash, the Med A shall:

a. report to the Sqn Main CP with an air portable medical kit for deployment by helicopter to receive orders; and

b. proceed to the site with the ambulance or by helicopter.

5. **Ops**. On notification of a crash, Ops will:

a. attempt to pinpoint the downed aircraft location;

b. deploy a rescue team by road or air;

c. request assistance of a Medical Officer from the closest medical facility;

d. ensure aircrew log books, CF 773s (MMA), flying schedules, mission details and other pertinent documents are impounded;

e. notify higher HQ of the crash using the Crash Report format;

f. recall/divert other aircraft as required; and

g. coordinate any other requirements outlined in A-GA-135/AA-001, *Flight Safety For The CF.*

6. **Duty Sig Op**. On notification of the crash, the Duty Sig Op will:

a. maintain a log for crash response;

b. broadcast a crash response alert on the squadron net as ordered;

c. log aircraft response(s);

d. determine the exact serviceability state from Maint, and the time that the first helicopter will be available for launch/tasking;

e. impound CF773s of the crew(s) involved in the crash as well as the crew's logbooks, if possible; and

f. support the Duty Ops O as required.

7. **SAMEO**. The SAMEO will normally deploy to the crash site as the OSC to assist in the crash procedure. Once at the crash site, as the OSC he/she will confirm the status of the crash procedure and will advise or assist as required in the execution of priority tasks.

8. **Aircrew**. Aircrew shall report to the squadron briefing tent for tasking.

9. **Airborne Aircraft**. Upon notification of a crash on the squadron net, airborne aircraft shall:

a. respond in sequence with:

(1) location;

(2) current operations state;

(3) fuel state; and

(4) configuration, if pertinent; and

b. monitor the squadron frequency for tasking/orders.

10. **SCWO**. Crash site security will be arranged by the SCWO.

11. **Contact of Next Of Kin (NOK)**. In the event of an off-base crash, Flight Commanders must wait for authorization from the CO before allowing personnel to contact their NOK. The NOK for members involved in the crash MUST be contacted first.

506.03 - 506.99 Not allocated

WUSOP 507 SQUADRON FIRE ORDERS

507.01 Fire Prevention SOPs

1. **Prevention**. The fire prevention measures detailed in this WUSOP apply to both field and garrison operations. The prevention of fire is of the highest importance to all personnel since the means available in the field to fight fires are primitive and inefficient.

2. **Fire Fighting Organization**. The squadron fire fighting organization is commanded by the SCWO, assisted by each of the flight WOs. The flight WOs are responsible to the SCWO for fire safety within their own lines. The SCWO shall ensure that each flight maintains the necessary fire fighting equipment as per this WUSOP.

3. **Disposal of Flammable Waste**. Proper and regular disposal of waste and other combustible material is critical to prevent circumstances where a fire might start. Garbage bags will be placed outside every tent for the collection of all waste and disposed of at the end of each day's work.

4. Smoking is prohibited in the following areas:

   a. within 100 m of any aircraft being refuelled or defuelled;

   b. within 50 m of any vehicle being refuelled or defuelled;

   c. in areas which are used for the storage and handling of combustible material;

   d. within 100 m of a bulk fuel installation; and

   e. in CPs, vehicles and tents.

5. No personnel shall carry matches, lighters or similar devices in the immediate vicinity of bulk fuel compounds, in fuelling vehicles, or when employed in the fuelling of aircraft or vehicles.

6. Electrical equipment shall be installed and maintained IAW the requirements and standards of the CA Electrical Code and applicable CFTOs.

7. The hooking up of flexible wiring to nails, hooks, etc, is forbidden.

8. Carelessness in handling oil lamps and space heaters can lead to serious fires, particularly in tents. Alladin "Blue Flame" heaters will not be used by 1 Wing personnel. Lamps, heaters and stoves will be inspected daily and care will be taken to ensure that they cannot be knocked over or come in contact with other combustible material. All lamps and heaters will be turned off before going to sleep.

9. Lighting of all open flame equipment will be done outside tents and buildings at a safe distance.

10. POL will be treated at all times as a dangerous explosive.

11. POL filling or decanting will always be done outdoors and away from any source of ignition. POL cans, full or empty, shall not be left in tents. All POL will be dug to a minimum depth equal to the height of the cans.

12. Extinguishers shall be conspicuously located and distributed so as to be readily accessible.

13. Fire piquets shall visually examine all portable extinguishers under their control at the beginning of their shift to ensure that the extinguishers are:

   a. unobstructed and accessible;

   b. in a clean and serviceable condition;

   c. free from physical damage; and

   d. equipped with inspection tags and that the lead wire seals are intact.

14. The following precautions will be taken when selecting tented camp sites:

   a. tented camp sites should be sheltered from the wind;

   b. tents will be sufficiently spaced so as to reduce the risk of fire spreading from tent to tent; and

   c. the site should be located near an adequate source of water, if possible, to fight any fire.

15. The following precautions will be taken near sleeping tents:

   a. vehicles will not be refuelled within 100 m of tents;

   b. empty or full fuel cans will not be stored within 100 m of tents; and

   c. all POL will be dug-in to a minimum depth equal to the height of the can, or placed into prefabricated spill containers whose capacity is equal to or greater than the capacity of the POL containers placed therein.

16. The following are precautions to be taken concerning the size and separation of modular tentage:

   a. shelters erected for sleeping accommodations shall not exceed four (4) modules in length to provide for quick evacuation and limit the amount of material loss, in the event of a fire;

   b. maintenance, messing, supply and recreation shelters shall be restricted in size and configuration to the minimum required for its intended purpose and so arranged that sufficient exits are provided for a safe evacuation, if required;

   c. a minimum of 50 m shall be maintained between maintenance, messing, supply and recreation tent structures. This distance shall also be maintained between these shelters and those being used for sleeping accommodations; and

   d. a minimum of 20 m shall be maintained between individual tents and rows of tents used for sleeping accommodations.

17. It is forbidden to sleep in a vehicle, unless the flight commander has granted prior approval. It shall be strictly forbidden to leave the engine running when sleeping in a vehicle.

18. Flight commanders are responsible for ensuring that adequate protective measures are taken in their respective areas of responsibility. They shall inspect their flights area once a day to ensure that procedures covered in this chapter are followed implicitly.

507.02 Fire Orders

1. These Fire Orders apply to all field deployments or exercises involving 1 Wing personnel. It is the responsibility of all ranks to be thoroughly familiar with these orders. Fire Safety should be emphasized at all times but particularly when deployed in a field environment.

2. Any person discovering a fire shall:

   a. shout "Fire, Fire, Fire!";

   b. awaken any personnel that may be sleeping in the immediate area;

   c. sound the siren on the nearest fire point and notify the Sqn Main CP by the quickest means possible, providing the following information:

      (1) location of the fire;

      (2) danger to aircraft and equipment; and

      (3) assistance required;

   d. commence fighting fire with equipment at hand under direction of the senior person present; and

   e. task individuals as pointmen to direct personnel arriving to assist fighting the fire.

3. **Squadron Main CP**. Duty personnel receiving a fire alarm will immediately ensure that the siren has been sounded, ensure that the radios and switchboard are monitored and that the remaining Sqn Main CP personnel assemble for orders.

4. **All Flights**. Upon hearing a fire alarm will immediately establish or confirm communications with Sqn Main CP and monitor the radios and switchboard;

   a. flight personnel will assemble at their flight CP and standby for orders from the Sqn Main CP; and

   b. aircrew will be prepared to move aircraft as necessary on orders from the Sqn Main CP.

5. **Stand Down**. The order to "Stand Down" from a fire will only be issued on the authority of the Sqn Main CP, once the fire is secured.

6. Vehicles in close proximity to the fire will be moved to a safe distance. Other vehicles nearby at the time of the alarm will be stopped on the right side of the road at a safe distance.

7. Tents within the danger area will be "struck" as a precaution to prevent the fire from spreading.

8. Sand filled containers for the disposal of used matches, cigarette ends or other ignited smoking material shall be located outside all tents.

9. "No Smoking" regulations shall be enforced and "No Smoking" signs will be prominently displayed in stores, tents, POL storage areas and other areas where smoking is prohibited.

10. All empty bottles or broken glass shall be disposed of immediately.

11. All personnel who smoke shall field strip their cigarette ends and ensure that matches are fully extinguished.

12. Oil or gas-operated lamps and stoves shall be filled and lit outside of enclosures. They will be properly secured against being upset when used in tents. Gas operated lamps will not be hung on tent poles. When lit, oil or gas-operated lamps and stores shall not be left unattended in tents.

13. Long grass, weeds and brush in proximity to tents, POL storage and fuel tenders shall be cut short and cuttings removed.

14. Fire equipment shall be provided at designated fire points IAW para 15. Each flight shall establish a fire point within the flight area. The location of all fire equipment will be conspicuously marked for day and night visibility. Once in position, fire equipment **shall not** be moved for any purpose other than fighting fires. Fire extinguishers shall be placed in close proximity to all heating appliances.

> **NOTE: Yukon heaters shall only be used in CPs and messes where there will always be personnel to monitor their operation.**

15. **Fire Point Equipment**. All 1 Wing fire points shall contain the following equipment:

a. **Winter Conditions**:

(1) fire point picket pole with a sign indicating "Fire Orders":

(2) lantern with a red lens or equivalent;

(3) siren, hand cranked, or other warning device;

(4) fire extinguisher 4 x 20 lb DC low temperature (blue);

(5) axe x 1;

(6) shovel x 1;

(7) pick x 1; and

(8) asbestos blankets available in the kitchen area; and

b. **Summer Conditions**:

(1) fire point picket pole with a sign indicating "Fire Orders":

(2) lantern with a red lens or equivalent;

(3) siren, hand cranked, or other warning device;

(4) pump, tanks, water 2 gallon x 4;

(5) sand pails x 4;

(6) axe x 1;

(7) shovel x 1;

(8) pick x 1;

(9) beaters x 4; and

(10) asbestos blankets available in the kitchen area.

16. **Fire Points**. Will be deployed at the following locations when required:

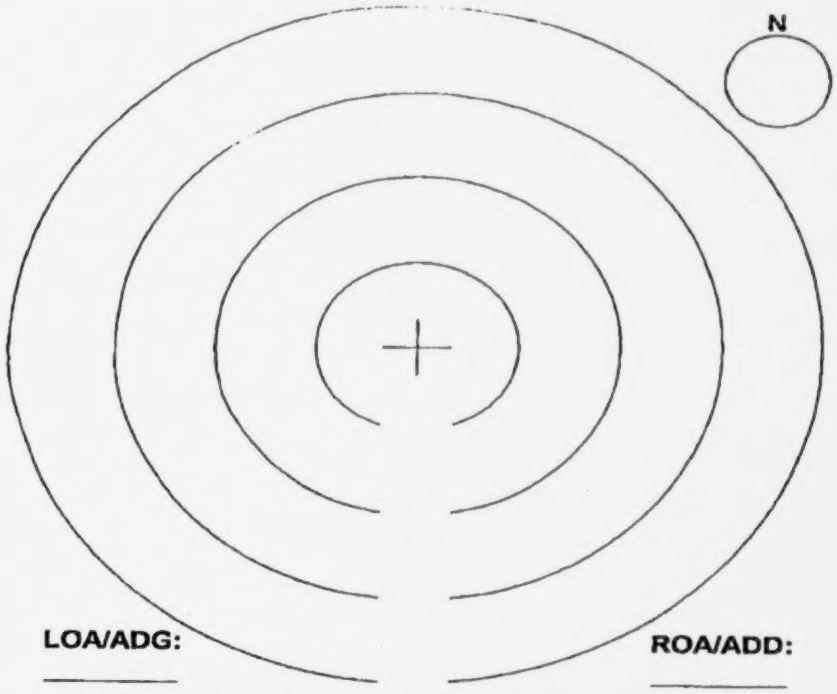
FP No:	Location:	OPI:
FP 1	Sqn Main CP	Sig NCO
FP 2	Kitchen/Mess Tent	Cooks
FP 3	Flight Line/Crash Tlr	Flt Comds
FP 4	POL Point	Log Sp Flt Comd
FP 5	Vehicle Park	Log Sp Flt Comd
FP 6	Sqn Main CP flight tent lines	Sig NCO
FP 7	A Flt tent lines	A Flight Comd
FP 8	Log Sp Flt tent lines	Log Sp Flt Comd
FP 9	Maint Flt tent lines	SAMEO
FP 10	B Flt tent lines	B Flt Comd
FP 11	C Flt tent lines	C Flt Comd
Any other location as required		SCWO

507.03 – 507.99 Not allocated

WUSOP 508 RANGE CARDS

508.01 General

1. Prepare range cards as soon as position occupied. Figure 5-1 shows an All-Arms Range Card. If none are available, produce range cards in this format from local materiel.



LOCATION: ____________ **DATE:** ____________
METHOD/METHODE: ____________
MADE BY/REDIGE PAR: ____________

NO	GRID COORD	BEARING AZIMUTH	DISTANCE	REMARKS REMARQUES

Figure 5-1. Range Card

508.02 – 508.99 Not allocated

PART 6

SUSTAINMENT

WUSOP 601 MOVEMENT

601.01 Road Movement

1. **General**. Road movement policies and procedures are governed by B-GL-303-009/FP-001, *Staff Manual Road Movement*. All movement of squadron personnel and vehicles must be coordinated through and authorized by the S Ops O. Furthermore, convoy movement cannot be permitted without authorization from the higher supported formation HQ. The DCO is responsible for all squadron movement and will be assisted by the S Ops O, the Log Sp Flt Comd, and the SCWO. The S Ops O will normally be designated, as the Air Movement Commander while the Log Sp Flt Comd will command all ground movement.

2. Space allocation for squadron locations are obtained through the HQ of the formation responsible for the area in which a location is required. Proposed area recce will not be done before clearance is obtained.

3. The squadron may be ordered to deploy on either a tactical or an administrative move. The following factors must be considered when planning a tactical move of the squadron:

   a. **Time/Distance**. The acceptable response time required for meeting mission tasking;

   b. **Concealment**. It is essential that the squadron LZ remains undetected and that the movement of helicopters does not disclose the location of the squadron or neighbouring units. Deception should be used by all departing and arriving helicopters;

   c. **Economy/Flexibility**. By concentrating the squadron, the best use can be made of manpower and resources. Local defence and administrative arrangements are also simplified when the squadron is concentrated at one location;

   d. **Communications**. The squadron maintains communications with its helicopters, the higher formation HQ, and the Log Ops centre of the affiliated Svc Bn; and

   e. **Support**. The squadron requires large quantities of POL products and other supplies such as aircraft spare parts that must be provided, when required to achieve maximum operational effectiveness. The squadron should, to the maximum extent possible, be located within or near the formation administration area.

4. The tactical deployment posture will be a compromise between the aforementioned factors and the requirement to deploy squadron elements forward to meet operational requirements.

601.02 Move Calculations

1. **Capacity Of A Route**. The maximum traffic flow obtainable on any particular road or route in one direction, is expressed in terms of vehicles per hour (vph). It is governed by physical considerations such as bottlenecks, defiles, condition of the road surface, etc. Thus, the capacity of any route is normally governed by the capacity of the worst defile, and the actual figure can only be established by observation at that point or from a route recce.

2. **Average Speed**. Average speed depends mainly upon the types of vehicles, the nature and conditions of the route, and the driving conditions;

- a. Movement is planned as mixed traffic (wheeled and tracked vehicles) to prevent faster moving wheeled columns from overtaking other convoys on route. This is the standard planning data for all road movement:
    - (1) Good roads:
        - (a) 20 kph (12 mph) by day; and
        - (b) 15 kph (9 mph) by night; and
    - (2) Bad roads/Blackout:
        - (a) 12 kph (7 mph) by day; and
        - (b) 10 kph (6 mph) by night; and
- b. **Wheeled Columns**. This type of column is generally found in independent or admin/sup traffic. When not moving behind or with tracked vehicles/mixed columns, the speeds used to plan a road move are as follows:
    - (1) Good roads:
        - (a) 40 kph (24 mph) by day; and
        - (b) 20 kph (12 mph) by night;
    - (2) Bad roads:
        - (a) 30 kph (18 mph) by day; and
        - (b) 15 kph (9 mph) by night; and
        - (3) Blackout. 15 to 20 kph, conditions permitting.

3. **Density**. Traffic density is defined as the average number of vehicles that occupy one km or one mile of road space, expressed as vehicles per km (vpk) or per mile (vpm). The traffic density is a result of the allowable "head to tail" distance between vehicles. Packet density is defined as the number of vehicles per packet (vpp). It will be determined mainly by the degree of possible enemy interference (whether from ground or air), upon the characteristics of the route or by a combination of both. Packet density will be directed by the formation HQ G3 Staff for tactical movement and the formation G4 Staff for administrative movement.

4. **Time Required To Complete A Move**. The time required to complete a move is the time that elapses between the passing of the start point by the first vehicle and the passing of the RP by the last vehicle. In order to calculate this time for planning purposes, the following information is required:

a. **Time Past a Point (TPP)**. The TPP is defined as the time required by a column or serial to pass a given point. The total TPP of a column, not taking gaps and extra time allowances between serials into consideration, is calculated using the following formula:

$$\textbf{TPP (in minutes)} = \frac{\textbf{Number of vehicles x 60 x Average Speed (kph)}}{\textbf{Vehicle density (vpk)}}$$

5. **Gaps**. In order to account for the time gaps between serials, one minute per 25 vehicles will always be added to the calculated TPP of each serial. If the number of vehicles is equal to or greater than 600, two minutes per 25 vehicles will be added to the TPP of each serial.

6. **Running Time**. Running time is defined as the time taken by one vehicle to complete the journey without specified halts. It is simply the total distance of the route divided by the average speed.

601.03 Movement Order

1. The Log Sp Flt Comd is responsible to the S Ops O for preparation of any squadron movement orders. Verbal orders will be given to all packet commanders who will, in turn, brief their drivers.

2. Upon receipt of an order to move from the higher formation, the DCO is responsible to confirm the suitability of the unit start point (SP) and release point (RP). The DCO must also liaise with other units concerning common routes to formation SP and from the formation RPs. Finally, the squadron can expect to be tasked to provide aircraft to the formation traffic control organization.

3. **Movement Warning Order**. A movement warning order will contain the following information:

a. probable location/task;

b. degree of warning/no move before timing;

c. O group time and location;

d. degree of move authorized for the recce and advanced party; and

e. administrative details.

NOTE. A sample Movement Order is contained as Annex A to Part 6.

4. **Squadron Tactical Deployment Sequence Of Events**. Upon receipt of the Movement Warning Order:

a. each flight commander issues a Warning Order as required;

b. the Log Sp Flt Comd conducts Battle Procedure;

c. the Recce Group recces to the proposed unit locations and confirms the suitability of new locations;

d. step-up procedures are actioned (See WUSOP 104);

e. the Advance Party moves to the new location;

f. the Log Sp Flt Comd issues orders to all packet commanders;

g. the Main Body moves on order to the new location;

h. the Advance Party receives Main Body at the new location;

i. helicopters not on tasking move on order to the new location;

i. helicopters on tasking will recover at the new location;

j. the Rear Party remains at the current location, if required and moves to the new location on order;

k. the new camp is erected at the new location;

l. the Recce Group departs to recce the new Alternate Location; and

m. the Recce Group returns and briefs the details of the Alternate Location.

5. **Recce Group**. The Sqn Recce Group will consist of the following positions:

a. DCO;

b. D/Ops O;

c. SCWO;

d. Ops SNCO;

e. Sig NCM;

f. a representative from each flight; and

g. sentries/guides (security party of 1 to 3 personnel).

6. An Aide Memoire for Recce Group personnel can be found at Annex C.

7. **Advanced Party**. The Advanced Party will be composed of the Recce Group, Step-up HQ, and other squadron personnel/resources as dictated by the CO's evaluation of the situation.

8. **Main Body**. The main body will move in accordance with the established priority of packets and occupies the new location as directed by the advance party. Once the new location is occupied, the local defence plan is established and operations are carrying on in a normal manner, the Battle Procedure for the subsequent move is to be commenced.

9. **Deployment Report (DEPLOYREP)**. Squadron/flights shall forward traces or overlays of their Sectors to the higher HQ, as soon as possible upon deployment. Sqn Ops shall ensure that the higher HQ has a current squadron location by use of the Deployment Report (DEPLOYREP) as shown in WUSOP 705.08.

601.04 Tactical Vehicle Marking

1. All squadron tactical vehicle markings will be in accordance with B-GL-303-008 /FP-001, *Marking of Field Force Vehicles and Guns*. Call signs will be in accordance with ACP 125.

2. **Convoy Marking**. When moving within a formation move, the squadron will adhere to the higher formation's move procedures. Within the unit, the following procedure will be employed:

    a. serials will be marked with a BLUE flag on the first vehicle and a GREEN flag on the last vehicle;

    b. unit serial/packet commander will fly a black and white flag diagonally bisected;

    c. unserviceable vehicles will fly a yellow flag;

    d. POL vehicles will display appropriate placards; and

    e. window cards and march credit numbers will be displayed as directed and removed at the unit refuelling point.

601.05 Signing

1. All vehicles and route signing will be done in accordance with CFP 303(8), CFP 303(9), and FSOP 303.05. During operations, minimum signing will be used. The squadron will remove signs immediately once usefulness of sign has expired. Normally, the higher formation HQ will be responsible for all aspects of signing, including harbours and halts for all routes and axes.

2. The SCWO is responsible for assigning the following:

    a. during the move, unit routes to the formation SP and from the RP to the new location;

    b. Assembly Areas, In and Out Routes from the Main Supply Route (MSR). Additional signing to flight locations is at the discretion of the CO; and

    c. signs may be affixed to anything as long as they are securely fastened and placed at a height readable by drivers.

601.06 Convoy Organization

1. **Packet System**. Unless special instructions are issued, the squadron will employ the packet system for unit or sub-unit road move with lead vehicles equipped with radios. A packet is usually comprised of four to eight vehicles.

2. **Packet Commanders**. Responsibility of officers and NCOs detailed as packet commanders are contained at Annex D.

3. **Distance Between Vehicles**:

    a. 100 m during day moves;

    b. 25 m during night moves; and

    c. 15 m blackout or as required to see the preceding vehicle.

4. **Distance Between Packets**:

    a. 1000 m by day (2 minutes); and

    b. 500 m by night (1 minute).

5. **Halts**. The judicious planning of halts is critical for the safety and efficient management of a road move. The guidelines for the employment of halts comprise the following:

    a. **General**. All halts will be recced for specific use and there will be NO stopping at unauthorized halts;

    b. short halts will be of 10 minutes duration for every two hrs of moving except:

        (1) no halts within 40 kms of the FEBA, and

        (2) no halts during moves of less than three hrs;

    c. for moves in excess of six hrs, there will be one long halt of 30 minutes;

    d. during halts, vehicles will move off the road and take cover. For administrative moves, they will move completely off the main travelled surface;

    e. cam nets will be erected for halts in excess of 15 minutes during a tactical moves;

    f. drivers will carry out driver maintenance on all halts;

    g. during long moves, halt parties may be required to provide rations, POL, medical and replenishment facilities; and

    h. **Halt Procedure**:

        (1) switch off lights and engine;

        (2) post sentries;

(3) apply basic camouflage to all vehicles;

(4) check fluid levels;

(5) check tires;

(6) check tarps/loads; and

(7) personal administration.

601.07 Order of March

1. Squadron equipment, vehicles and aircraft shall depart the squadron location in the following order of march:

a. all serviceable helicopters;

b. vehicles in order of march specified in the Mov O; and

c. all equipment to be left behind, including unserviceable helicopters will be destroyed on order of the senior rank present, prior to abandoning the squadron location.

2. An example of order of march is found at Annex B to Part 6. Assessment of the environment, theatre or tactical situation will dictate the adequate order of march.

601.08 Responsibilities

1. The responsibilities of the Packet Commander and Driver are contained respectively at Annexes D and E to Part 6.

601.09 Fuel Replenishment

1. Replenishment of fuel for all vehicles and equipment will be done from the Log Support flight POL vehicle in accordance with the following guidelines:

a. immediately after each move;

b. each vehicle will be topped up daily;

c. each vehicle will be topped up at designated refuelling points; and

d. every effort will be made to ensure all vehicles are fully fuelled and ready to move at all times.

601.10 Protection During A Move

1. **General**. Packet commanders will be responsible for the protection of their packet. All convoy personnel shall have their personal weapon and NBC mask with them at all times. Radio silence, if imposed, shall not be broken during movement except to report an attack. Air sentries will be posted whenever possible.

2. **Ambush**. When ambushed, the packet commander will take necessary action to disengage the packet with the least amount of casualties. This may require the packet to increase speed and drive trough the ambush or withdraw while personnel return fire. It may also become necessary to stop the vehicles to allow personnel to dismount and fight the enemy if the situation so dictates. In areas and situations where there is a high risk of ambush, the convoy should move in packets of no more than four vehicles. Vehicle and packet spacing must be strictly enforced, and all personnel shall have weapons ready to fire. When a packet or convoy is ambushed and the decision is to engage, the following actions should automatically take place:

   a. troops on near side of the ambushed vehicles return fire from vehicle;

   b. others will attempt to engage the enemy with available weapons;

   c. attempt to disengage using all supporting fire that can be brought to bear; and

   d. information will be passed to following packets to ensure they do not enter the ambush area until cleared.

3. **Air Attack**. Vehicles will disperse and stop, using available cover, allowing personnel to dismount and take cover away from the vehicles.

4. **Artillery or Mortar Attack**. The speed of the packet should be increased if possible to clear the impact area as rapidly as possible.

5. **Gas Attack**. Stop vehicles to allow the drivers to don their NBC masks, then proceed to clear the contaminated area as quickly as possible.

601.11 Traffic Post (TP)

1. On passing a traffic post, the convoy commander or his representative in the lead vehicle will pass the following information:

   a. unit;

   b. number of packets; and

   c. total number of vehicles.

2. The last vehicle in the convoy will inform the traffic post that there are no further vehicles as a part of the convoy. Any information relating to the number and location of isolated or broken down vehicles should be passed as well.

601.12 Priority Vehicles

1. Convoys and vehicles priority signs will conform to B-GL-303-006/FP-001, *Road Movement*.

601.13 March Discipline

1. March discipline comprises those actions by individuals that minimize the probability of difficulties with road moves. Among other things, march discipline comprises:

   a. maintenance of correct speeds and spacing between vehicles within a packet or between packets;

   b. correct driving technique, including Traffic Control (TC) by drivers at any halts;

   c. prompt response and relaying of all signals and orders;

   d. observance of traffic regulations, orders of traffic control and rules of the road;

   e. effective use of cover, concealment, camouflage, dispersion, blackout precautions and other measures against ground and air attack;

   f. proper care of equipment, with due regard to servicing; and

   g. passage of information to TC personnel.

2. Vehicles parked on the roadside create a needless obstruction and cause passing traffic to pull out towards the center of the road; therefore, whenever parking along a route, drivers must always endeavor to park completely clear of the roadway.

3. The slightest fluctuation in speed has greatly exaggerated results in the rear of a column. Group leaders and drivers must strive to maintain a steady speed and keep correct spacing. Changes in speed or adjustment of space intervals must be made gradually and not suddenly.

4. **Passing Policy**. No passing of vehicles within a convoy is authorized unless a vehicle is broken down. Personnel should be briefed on the passing and breakdown policy as a part of the road movement orders. Except for breakdowns, there are no unauthorized halts.

5. **Vehicle Close-up Procedure**. When approaching urban areas, i.e. towns or villages, vehicles will close-up to one vehicle length for continuous driving. Upon reaching the end of the urban area, vehicles will resume normal spacing.

601.14 Route Cards

1. A route card will normally be prepared for all drivers. If route cards are not prepared, each driver and vehicle leader must be briefed on all pertinent information which would be included on a route card.

601.15 Administration

1. **Medical**. An ambulance or vehicle with a medical officer or medical assistant will travel near the rear of the convoy.

2. **Vehicle Casualty**. If a vehicle breaks down, every effort will be made to clear it off the road. The driver will display a yellow flag and erect safety triangles to the rear and front of the vehicle. The driver will then stand behind his vehicle in order to direct oncoming traffic. At night, a screened flashlight without beam will be used.

3. **Recovery**. The recovery plan will be formulated by the Log Sp Flt Comd, who will identify priorities for recovery and give direction and timings with respect to routes and procedures. A recovery vehicle and/or mobile repair vehicle will follow the convoy. Recovery will not be carried out where and when it interferes with convoy traffic. The squadron trail party is responsible for first line vehicle recovery.

601.16 Harbours

1. For a formation convoy move, the formation HQ will designate locations that will be used as harbours along the route. Harbours are useful for defence, replenishment, repair or simply for traffic control. For a squadron convoy move, the squadron recce group will recce and designate squadron harbour areas. The principles of camouflage, concealment and route discipline must be observed at all times within the harbour locations. Requirements for a harbour area are the same as those for a bivouac area.

601.17 End of Move

1. During a non-tactical administrative move, all vehicles must close to one vehicle length, when the lead vehicle of each packet stops. Upon arrival at the final destination, all vehicles should be refuelled prior to camp set-up. Equipment should not be unloaded until ordered. A last parade should be completed on all vehicles to include all faults recorded on work ticket. During a tactical move, action on ambush, air attack, camouflage, and dispersal off road procedure as well as the track plan at the new location must be briefed.

601.18 - 601.99 Not allocated

WUSOP 602 REPLENISHMENT

602.01 Combat Support

1. Replenishment within the squadron will normally operate on the "pull" system in that there will be no automatic resupply unless a forward commodity point is established. Med, Sup, MSE, EME and rations support of the squadron is the responsibility of the Log Support Flight. All squadron requirements shall be processed through the Log Support CP to the Svc Bn Log Ops with info to the Formation Log Cell when necessary.

2. Routine replenishment will occur at daily DPs, commodity points or a combination of DPs and commodity points. These will include combat supplies, limited general stores, spare parts and mail, but not aircraft spares/special POL. DPs or

commodity points will also normally be the exchange point for casualties being returned to unit (RTU), stragglers and reinforcements.

3. The Log Support flight WO is responsibility for control and coordination of all DPs with squadron echelons and Formation Svc Bn. Squadron vehicles assigned to the DP run will proceed to the DP at location and times authorized by Formation HQ on a daily basis and then resupply the squadron echelon groups as required.

4. **Replenishment Levels**:

   a. **First Line**. Log Sp Flt will provide replenishment to all flights within the squadron;

   b. **Second Line**. Svc Bn provides second line logistic support to the squadron except for aircraft spares/special POL; and

   c. **Third Line**. CFSS Bell Coop will provide aircraft spares. These parts will be delivered by daily DPs. **Note:** Bell COOP or a commercial carrier will move parts to the airhead only. The Bde Svc Bn will be responsible for moving all items to a DP, who will then deliver them to the unit in the B, A, or F echs.

5. The squadron will normally carry a basic load of three days combat supplies for Class 1, 3, and 5.

602.02 Replenishment In Harbour

1. Supply vehicles will dump POL and ammo on the ground at each flight's POL point.

2. Empty cans are either carried by hand to the designated squadron POL point or picked up by empty vehicles in another circuit of the track plan.

3. Vehicles normally refuel at a designated squadron POL point upon return from task.

4. Other commodities are normally drawn from the echelon in a central location.

602.03 Provision Of Water

1. Engineers will provide water quality equipment and support personnel.

2. Normally two Water Points (WPs) will be established on the direction of the formation HQ.

3. WPs will normally deploy after last light, and close and redeploy completely by first light. Normally squadrons will be requirement to pick up water at the WP. Water resupply may sometimes be on a "can for can" basis at DPs.

4. Formation G4 Ops will pass locations, hours of operation and affiliations to all units.

5. WPs will normally open as soon after last light as possible and units will be given block times to draw.

6. Water supply during winter ops will normally be in ice form. Engineers will be responsibility for freezing water in cardboard containers. Svc Bn will be responsibility for the delivery of the quantity demanded by units on night DPs.

7. Fd Amb will provide initial clearance to engineers for use of a water source following quality checks as necessary.

8. Engineers will established the WP, and do checks for turbidity, colour and chlorine.

9. Fd Amb will provide follow-on quality inspections as necessary.

10. Shower service is provided by the Formation Service Battalion Supply Company.

602.04 Water Consumption Table

Purpose	(Lts per pers) Potable Water	Combat troops, incl personnel in aircraft and/or in IPE:
a. Drinking and individual cooking only.	7	Increases to 15 litres when temp exceeds 30°
b. As per "a." but allowing for limited personnel hygiene	10	Increases to 20 litres when temp exceeds 30°
c. Normal planning figure for Protracted Gen Ops	25	Increases to 45 litres when temp exceeds 30°
d. As per "c." plus showering	70	

602.05 Control of Demands

1. **Routine Demands**. Routine demands will be passed by the following means using the Material Demand (MATDEM) format:

   a. over the Admin Net;

   b. by teletype;

   c. by SDS; and

   d. by hand to the DP commander.

2. **Supplementary Demands**. Supplementary demands are used to add or delete from previous requisitions. They are to be passed to Log Sp Flt at least 1 hr prior to latest time designated by Formation Log Ops for forward to Log Ops prior to deadline. All demands received after this time will be treated as normal demands and delivered on the following night's DP.

3. **Emergency Demands**. Urgent operational requirements may be submitted at any time as an Emergency Material Demand (MATDEM) through Admin net at any time and will be delivered by best means available.

4. **POL**.

   a. daily replenishment of all petroleum products except turbo will be at the DP in accordance with the demand made by the squadron;

   b. replenishment of MT gas and diesel will be by jerry cans on a one for one basis or bulk (Pods);

   c. replenishment of turbo will normally be by bowser; and

   d. if required, a turbo depot in a squadron loc may be required from the Log Cell.

   Note. POL spills will be reported as per SSO on Hazardous Chemical Spills.

5. **Defence Stores**. Defence stores will be in accordance with stores control procedure.

6. **Controlled Stores**. A limited range of material will be subject to special control at various command levels to ensure allocation meets current operational needs. Squadron demands for these stores will be submitted to Log Ops who will request release authorized from Formation HQ. These stores will normally include radio equipment, vehicles, defence stores, weapons and ammunition, may also include B and C class stores which are available in limited quantities, are costly, or are not easily stored.

7. **Clothing/ General Stores**.

   a. the Svc Bn will forward monthly consolidated general stores demand forms to the squadron for completion and return. Stores demanded will be delivered at the DP;

   b. a small quantity of clothing for the ambient climate is carried by the sqn or the Svc Bn during ops. These stores are to be used only in an emergency; and

   c. NBCD equipment issue and control will be as per WUSOP 501.

8. **Spare Parts**.

   a. the squadron will deploy with its first line aircraft spares and first line vehicle spares (15 days for vehicle and 30 days consumables for helicopters) and non-returnable items;

   b. demands for spare parts and consumable items will be submitted using normal demand forms. When urgent demands are made by radio or message, the IOR format will be used;

   c. routine stores requirements will be delivered at the DP. Urgent (IOR/ aircraft on Ground AOG) items will be delivered by the fastest means; and

   d. aircraft spare parts and special lubricants will be obtained direct through third line resources.

602.06 Return for Repair, Salvage and Scrap

1. **Return of Spare Parts**. Spare parts, which have been designated for return or are repairable will be packed in accordance with applicable technical orders and returned through the DP.

602.07 Feeding

1. When possible, squadron personnel will be fed fresh rations.

2. When on hard rations, means for heating rations should be available, and each flight will have available a means for heating potable water for hot beverages.

602.08 Provision of AVPOL

1. The Bde Svc Bn is normally responsible for establishing an aviation fuel point from which squadron refuellers can draw fuel.

2. Other AVPOL is obtained through the supply system.

602.09 602.99 – Not allocated

WUSOP 603 REPAIR AND RECOVERY

603.01 Repair

1. **Vehicle Repairs**. Vehicle repairs are classified as either first or second line repairs.

   a. first line repairs are the responsibility of Log Sp Flt Veh Maint Sect;

   b. second and third line requirements are passed to Maint Coy of the Svc Bn. In situ repairs for second line maintenance can be requested for priority vehicles (e.g., CP, CRTTZ, Kitchen, Refuellers, Ambs, etc.);

   c. when an Equipment Collection Point (ECP) is established forward, units will recover their vehicle casualties to the ECP. Svc Bn will then back load the vehicles to Maint Coy's location. Log Sp Flight will arrange for delivery of other equipment requirements for second line repair to the ECP or other location as designated by Log Ops. A driver with their basic load of rations, and a CF 1020 work order must accompany all vehicles; and

   d. vehicle or equipment repair requirements will be passed to the squadron main CP by the responsible flight giving: CFR, ECC, nature of repair requirement, location of vehicle or equipment, and contact personnel. Log Sp Flight CP will receive requirement information from squadron main CP as dictated by squadron operational priorities.

2. **Miscellaneous Repairs**. Small equipment such as weapons and radios may be delivered to the MRG via DPs, or taken direct to the MRG by squadron transport. The following procedures will apply:

a. CF 1020 will be prepared and attached to all equipment;

b. equipment will be packed to prevent damage; and

c. following repairs, the equipment will be returned via the DP or Maint Coy, who will call through Log Ops for squadron pickup.

3. The MRG has a limited welding capability. Normally, welding will be done centrally in the MRG. In an emergency a MRT can be deploy in support of minor units with no organic welding capability.

603.02 Recovery

1. Recovery beyond unit capability is the responsibility of the Formation Svc Bn Maint Coy. The squadron is normally responsibility for:

a. pulling vehicles from ditches;

b. towing vehicles to the squadron repair shop; and

c. evacuate them to the ECP if repairs are beyond its capabilities.

2. The squadron is limited simple recovery tasks and shall request second line support when task exceeds their capability and resources.

3. The Svc Bn has a recovery capability for vehicles up to and including the M113A2 family. Priority for recovery is as follows:

a. route clearance;

b. obstacle crossing;

c. back loading of vehicle casualties;

d. assistance to units;

e. battlefield clearance; and

f. recovery assistance will be requested from Svc Bn/Log Ops using the format at WUSOP 706.05.

4. **Back Loading**.

a. back loading of vehicles and heavy equipment beyond the repair capability of Svc Bn will normally be carried out by third line resources; and

b. liaison, coordination and promulgation of the back load procedures will be the responsibility of the Bde G4 Maint in cooperation with the Svc Bn.

603.03 Priority For Vehicle Repair

1. The following is the generic priority list for vehicle repair in a squadron:

   a. C^2 vehicles;

   b. refuellers;

   c. ambulances; engineer equipment, other A echelon vehicles;

   d. recovery vehicles; and

   e. other B echelon vehicles.

603.04 Aircraft Maintenance

1. **First Level Aircraft Maintenance**. First level aircraft maintenance activities, including POL replenishment, may be conducted by either the unit's integral aircraft maintenance sub-unit or by the aircrew. The tactical situation, proximity to the brigade forward area, nature of the aircraft maintenance activity performed and the availability of trained personnel will dictate to what extent either group performs first level aircraft maintenance functions. The CO is responsible for determining the degree of participation of each group in first level aircraft maintenance activities.

2. **Second Level Aircraft Maintenance**. All unserviceabilities, which cannot be repaired in two hours or less, are to be completed by aircraft maintenance sub-unit personnel, trained in second level aircraft maintenance functions. This is normally accomplished in the BSA during a non-tactical phase of an operation. However, limited aircrew (FE) support may be available to assist in selected second level inspections and repairs. Some second level activities may not be accomplished because of a lack of equipment and personnel, therefore, higher level assistance may be required.

3. **Third Level Aircraft Maintenance**. Third level aircraft maintenance activities will be coordinated by 1 Wing HQ to NDHQ.

603.05 Aircraft Recovery

1. **Mobile Repair Parties (MRPs)**. MRPs are formed from within the Aircraft Maint Flt. The MRP may be dispatched by air or ground, and is responsible for evaluating the damage to a downed aircraft. Once the damage is assessed, they can either repair the problem in situ using ABDR techniques, if applicable, or may recommend another mode of recovery.

2. **Recovery**. The SAMEO is the coordinating authority for the aircraft recovery team. Requests are normally initiated from squadron ops. Aircraft may be recovered using a Mobile Repair Party, Ground Transport, or another aircraft. Requests for heavy equipment support (tractor/trailer, crane, etc.) are made through Log Sp Flt Comd to the Svc Bn.

3. Sqn Ops through 1 Wing HQ must seek approval for recovery using another helicopter.

603.06 - 603.99 Not allocated

WUSOP 604 PERSONNEL AND ADMINISTRATION

604. 01 Emergency War Burial

1. The aim of this WUSOP is to outline emergency war burial procedures.

2. Whenever practicable, a separate burial shall be given to the remains of each deceased personnel. The form of burial is the responsibility of operational units and not that of grave registration units.

3. Emergency burials are carried out to:

   a. conform with accepted principles of hygiene and maintenance of morale;

   b. provide security from marauding animals and looting; and

   c. ensure ease of subsequent recovery and identification.

4. Graves will be located near the scene of death. Sites should be selected to ensure ease of subsequent relocation, recovery and identification.

5. As a guide, the minimum depth should be one metre. The body is to be enclosed in a Human Remains Pouch, shelter half, poncho, blanket, or any similar material as available whenever possible.

6. Burials are to be grouped by nationalities. Different areas for separate graves, trenches, or group burials are to be allocated to each nationality, including enemy dead.

7. Whenever practicable, a burial service of the appropriate religion is to be held.

604.02 Definitions

1. **Emergency Burial**. When conditions do not permit evacuation for interment in a cemetery.

2. **Group Burial**. Burial of two or more unidentified remains in a common grave.

3. **Trench burial**. For use when there are multiple casualties. Prepare a trench and lay individual remains side by side.

604.03 Burial Procedures

1. **Site Selection**. Site emergency graves to provide ease of recovery and protection from water. When siting a grave, always note and comply with the following:

   a. an 8 figure grid reference;

   b. map used, scale;

   c. nearest town/village;

   d. distance and bearing from prominent local objects;

   e. avoid roadside burials if possible;

f. dig graves;

g. individual graves whenever practicable;

h. separate graves for different nationalities;

i. graves should be at least 1 m deep;

j. prepare the body;

k. remove personnel effects. (Except for US personnel);

l. remove 1 x ID disc. (Except for US personnel); and

m. place effects in a suitable receptacle (e.g. a jam jar).

2. **Wrapping**. Clothed bodies must be wrapped in coverings that permit the normal process of decomposition and release of body fluids to occur (i.e. porous body pouch/bag, blanket, hessian etc). Impervious wrappings should only be used as a last resort.

3. **Marking of Individual Graves**. Use cross/rifle to mark grave. At base, half bury a container open end down and enclose the following info written clearly on paper in plastic envelope in pencil or indelible ink:

a. Name (Surname, Forename or initials);

b. rank;

c. sex;

d. SN;

e. national force, unit, date, birth place (if available);

f. date, cause of death (if known);

g. date buried;

h. by whom buried; and

i. religion (if known).

4. **Marking of Group/Trench Burials**. A marker and container is to be placed at each end of the grave/trench with the following information written clearly on paper in plastic envelope in pencil or indelible ink:

a. distance of remains from marker against relevant entry in the enclosed list; and

b. number of bodies with names of known and numbers of unidentified dead listed.

5. **Unidentified Dead**. Bury and report as others but enter "unknown" in place of name. Record full physical description to assist in later identification. Always note the following:

- a. sex;
- b. approximate age;
- c. height;
- d. build (stocky/medium/fat/thin);
- e. hair colour/style (bald/crewcut);
- f. facial hair (beard, moustache/sideburns);
- g. eyes (colour);
- h. ethnic appearance;
- i. tattoos/marks/scars;
- j. teeth (false/missing);
- k. uniform;
- l. jewellery (watch, rings); and
- m. vehicle details (if appropriate).

6. **Burial Service**. Whenever practicable, a burial service of appropriate religion will be conducted. Brief, religious, approved services for Christians, Hindus, Moslems, Buddhists and Jews are found in the Unit Guide to the Administration of Personnel in War.

7. **Documentation**. Record an 8-figure grid reference. Complete two copies of an Emergency Burial Report. Submit both to the Squadron Adjutant.

8. **Disposal of Effects**. An inventory of effects is to be filled out in triplicate with a copy going to each of:

- a. no 1. Effects receptacle;
- b. no 2. Field records (overseas cases); and
- c. no 3. Retain in unit.

9. **Contaminated Remains**. If the casualty is suspected to have died from, or been exposed to chemical or biological agents, the following procedure will be employed.

- a. record the agent that caused death, if known, otherwise state that death was caused by the effects of exposure to unknown NBC agents;
- b. burial party to wear respiratory protection, gloves, boots and protective clothing (CW protective coveralls, if possible);
- c. place remains in a casualty/body bag as soon as possible;
- d. decontaminate personnel effects where possible;

e. mark contaminated graves with NBC warning signs in accordance with STANAG 2002;

f. record a plan of the location of contaminated graves; and

g. seek expert medical advice on hygiene precautions.

604.04 Personnel Records

1. The personnel records function ensures that adequate records are maintained on each soldier deploy in an area of operations. The key to personnel records in the field is simplicity.

2. Every squadron holds personnel records on all their personnel. In the field, only an abbreviated version of that information to which the unit might require immediate access for the management of the squadron and its personnel administration requirements are deployed.

3. **Documentation**. During OOTW and in war, the following documents are to be held:

a. by individuals:
    - (1) ID card (CAFIB 20);
    - (2) ID disc x 2;
    - (3) driver/operator permit (DND 404);
    - (4) medical warning tag (if applicable);
    - (5) Geneva convention ID card (CF 281) for those members authorized;
    - (6) international certificate of vaccination;
    - (7) ROE card; and
    - (8) passport as requirement; and

b. by the squadron:
    - (1) medical documents;
    - (2) personnel files;
    - (3) a copy of wills;
    - (4) Personal Emergency Notification (PEN) forms;
    - (5) ISOPREP forms;
    - (6) UERs; and
    - (7) dental documents.

604.05 Squadron Action On Arriving At Or On Vacating The Brigade Services Area (BSA)

1. All entries into and out of the BSA will be controlled by Brigade Log Ops. Units/elements established in the BSA are not to vacate their positions without authorization from Brigade Log Ops.

2. Units/elements wishing to occupy areas within the BSA must first obtain approval from the applicable formation and then request an allocation of real estate from Brigade Log Ops.

604.06 – 604.99 Not allocated

WUSOP 605 HEALTH SERVICES

605.01 General

1. Fd Amb is responsible to provide second line medical services to units. They have only a limited holding capacity that allows minor sick and wounded to be held until they can be returned to duty. The holding policy in an operation is predicated by the tactical situation and casualty rate. Casualties that are expected to return to duty within the time specified by the holding policy are held at the Brigade Medical Station. All others are evacuated to third line facilities as rapidly as possible.

605.02 Medical And Dental Services

1. Fd Amb is responsible to provide second line medical and dental services to units. Services provided comprise:

   a. staff advice to the CO regarding the deployment of their medical assets;

   b. first line support, as required, for units without organic first line medical elements;

   c. evacuation of patients from the Unit Medical Station (UMS);

   d. evacuation of patients to third line medical facilities, unless provided by higher sources;

   e. provision of facilities for sorting and staging of casualties, and for providing limited in-patient care;

   f. holding the sick and injured in accordance with the brigade holding policy and during periods when the chain of evacuation is interrupted;

   g. augmentation, reinforcement or replacement of unit medical personnel

   h. replenishment of medical material and expendable supplies; and

   i. assisting in the maintenance of health and the prevention of disease.

2. The Fd Amb will provide all dental services in support of a unit.

605.03 Casualty Evacuation

1. For the application of First Aid, all personnel are to carry a field dressing in the top right pocket of the combat jacket or front pocket of IPU, when worn. The responsibilities with respect to the subsequent movement of the casualty comprise the following:

CASEVAC Responsibilities:

	Movement		Location		Treatment
	Sub-unit		Point of injury		MA
	MA		Squadron UMS		UMS
	UMS		Fd Amb MRS		MO
	MO		Medical Services		Hospital

2. CASEVAC is normally the responsibility of the medical unit to which casualties are being evacuated.

3. Units and sub-units without organic medical facilities will evacuate casualty to nearest medical facility. This may mean movement of the casualty forward.

4. **Weapons And Equipment**. Prior to CASEVAC of an individual, remove all non-personal equipment (compass, binoculars, etc.). The casualty shall retain personnel equipment, weapon, webbing, etc., as far as the Divisional Station.

605.04 - 605.99 Not allocated.

MOVE ORDER FORMAT

Copy ____ of ____

Issuing HQ

Location

Date/Time Group

MOV O 001

Refs: Prior orders on which the move is dependent. All maps required for the completion of the move. (Name, sheet and edition, scale, date of issue).

Time Zone: Be specific, use local only when more than one time zone is involved.

1. **SITUATION**.

   a. **En Forces**. This should be a brief description of the en/tac sit. Normally provided by the int staff via Higher Fmn Orders or Int Reps;

   b. **Friendly Force**. This should be a brief listing of friendly/flanking forces in the squadron area;

   c. **Attachments/Detachments**. List any attachments to the convoy and/or any of your sub-units detached out, i.e. not accompanying the convoy; and

   d. **CO's Evaluation**. Optional. (Not normally included).

2. **MISSION**. The action statement is "Will Move". Only one mission is stated and normally the only limitation included is the time by which the mission must be completed.

3. **EXECUTION**.

   a. **Concept Of Movement**. A brief description of the move, i.e. the route travelled, a tactical or an Administrative move, the packet/capacity system being used;

   b. **Tasks To Subordinate Units**. This para is used for exactly what the heading states. Detail tasks to subordinate units, e.g. kitchens, POL, MRT, etc;

   c. **Detailed Timings**. Normally this para is used for stating timings for marshalling, crossing the start point, confirmatory orders, etc; and

   d. **Coordinating Instructions**:

      (1) **Order of March**. This sub-para is used to designate the order that Bn/Sqn/Flts/Packets/Vehs will travel, depending on the level at which the order is being written;

(2) **Routes**. Normally refer to route cards as well as list the routes in point form. The total distance of the move and route signing can be included;

(3) **Density**. Normally expressed in distance between vehicles and time between packets/serials;

(4) **Speed**. Will vary as a result of the vehicle type, route, and the tactical situation;

(5) **Method of Movement**. E.g. a packet system with 48 vehicles per packet;

(6) **Defence During theMove**. This is normally an SOP. Specify the defence. Never assume that everyone knows the SOP;

(7) **Critical Points**. This paragraph should include all major critical points giving a grid ref or a physical description. The SP and RP should have (where possible) both a grid reference and a physical description. It is not necessary to list every major point as they will be covered on the route card. The SP is that point at which control of the vehicles is relinquished to a higher authority, i.e. at the Bn SP, control moves from the squadron to the battalion. The RP is that point at which control of the vehicles is relinquished to a lower authority, i.e. at the Bn RP the vehicles revert to command of the squadron;

(8) **Convoy Control**. The lead vehicle flies a blue flag on the front right bumper during daylight, a blue light can be used at night. The last vehicle flies a green flag on the front right bumper during daylight, a green light during the night. A vehicle position/packet no card is displayed in the windshield or chalked on the passenger door;

(9) **Harbour Areas**. List by Grid Reference and by physical description, if possible, the harbour areas on the route. Normally, list the time (approximately) to be spent in the harbours;

(10) **Instructions at Halts**. All halts along the route should be listed and the time to be spent in each halt. Special instructions include details such as whether vehicles are to close up or to maintain spacing; state whether POL and/or meals are to be done at what halts; and the type of defence. There should be a 10 minute halt every two hours (none for moves less than three hours) or in accordance with SOPs;

(11) **Lights**. State specifically how to use lights during the move, e.g. LOW BEAM, and black out drive after the no light line, etc; and

(12) **Air Support**. Detail any air support available during the move.

4. SERVICE SUPPORT

a. **Traffic Control**. Normally advise where MPs will provide TC. Traffic arrangements at halts and harbours can be mentioned. The route signs to be used should be confirmed;

b. **Recovery**. Detail the areas of responsibility for recovery, and the position of MRT/wrecker. Normally they are free runners at the end of the convoy, and the vehicle will display a yellow flag to denote breakdowns. This flag is normally attached to the left hand mirror or to the left, rear bumper;

c. **Medical**. Detail the position of any medical attachments. Normally the amb should be a free runner at the end of the convoy. Details should be provided of any facilities en route which may be used. Detail actions to be taken in the event of an accident or personnel casualty;

d. **POL**. Used to detail all POL requirements such as fuel halts, opening of POL point prior to move, requirements for full jerry cans on each vehicle and location of the POL vehicle in convoy, etc.;

e. **Water**. Detail the carriage of canteens, water cans, etc, as well as the restriction on consumption of alcoholic beverages;

f. **Rations**. Detail ration arrangements. Points should include:

(1) place/time for meals, e.g. early breakfast;

(2) lunch halts reconfirmed; and

(3) meals in the new location (this must correspond to tasks assigned to the cooks and the flying kitchens);

g. **Ammunition**. This is an optional paragraph. If used, designate:

(1) where the convoy basic load is carried; and

(2) where/how much ammunition must be drawn for security of vehicles; and

h. **Dress/Equipment**. This also is an optional para used for detailing any special dress or equipment to be carried during the move;

5. **COMMAND AND SIGNALS**

a. **Command**.

(1) Designate the Convoy Comd;

(2) Designate the Convoy 2IC; and

(3) Designate the Move Comd.

b. **Communications**.

(1) **Frequencies**. Primary and Alternate;

(2) **Call Signs**. Detail of all required call signs; and

(3) **CODE WORDS**:

(a) cross the Start Point;

(b) cross the Release Point;

(c) change frequency; and

(d) report lines along route, if applicable.

c. **Passwords**. Detail the passwords for the next 24 hr period.

d. **Position of Key Vehicles**. Used to identify and place key vehicles in the convoy. All vehicles not placed into an order of march should be designated here as free runners. Any vehicles which must precede the convoy or "trail" the convoy should be designated as free runners. These should include the Convoy Comd, the 2 I/C, Amb, MRT and Wreckers.

NOTES:

1. **ACK INSTR**. State the method of ack and time required, (e.g. in writing by 1900 hrs, by radio, etc).

2. **AUTHENTICATION**. Only used when the "commander", who would normally sign the order is not available.

3. **ANNEXES**. List all annexes which should include the route cards, the traffic plan, overlay, etc.

4. **DISTR LIST**. Ensure that it is broken down into internal/external and action/info. All personnel involved must receive a copy. It is important all packet commanders have a copy. All drivers should have a copy of the route card and overlay. The Order must contain the CO's Name and Rank.

5. **Timing**. Do not forget that timeliness is important. A very good, detailed, Move O that is late, is of no use.

SQUADRON ORDER OF MARCH (EXAMPLE)

Recce Group

C/S	Vehicle	Trailer	Driver, passengers
9A	DCO's Rover		Driver, DCO, SCWO, HQ SNCO
9E	Sig NCM		Sig NCM, D Ops O
19C	A Flt WO		A, B and C Flt WOs
89C	Log Flt WO		Maint and Log Flt WOs
TBC	TBC		Sentries/Guides

Advance Party

9A	DCO's Rover	cargo trailer	Driver, DCO
9C	SCWO	cargo trailer	SCWO, sentries/guides
9E	Sig NCM		Sig NCM, HQ SNCO
19C	A Flt WO	cargo trailer	Flt WO, sentries/guides
29C	B Flt WO	cargo trailer	Flt WO, sentries/guides
39C	C Flt WO	cargo trailer	Flt WO, sentries/guides
0A	Step-up CP	5 kw	Sig Op, D Ops O
59C	SAMS Rover		SAMS, sentries/guides
89C	Log Flt WO		Flt WO, sentries/guides
9F	IT Sec FC	cargo trailer	Sig Op
87B	Kitchen 1	Kitchen trailer	MCpl/Cpl Cook
84E	Diesel	jerry cans	MSE Op

Main Body

Packet 1

93	IO		IO/Int NCM
9C	SWO's Rover		Sig Op
	CO's Plan Van	cargo trailer	Sig Op
0	Sqn Main CP	5 kw	Duty Ops O
92A	SOR		Clerk/CC
93F	ERSTA		ERSTA Msn Specialist
9G	Info Systems Repair	5 kw	Rad Tech
9	CO's Rover	trailer	Sig Op

Packet 2

19	A Flt Comd	cargo trailer	FE
9D1	NBCD/LO Rover		NBCD O
1	A Flt CP	5 kw	
1A	A Flt Stores	cargo trailer	
1B	A Pers/Bag	cargo trailer	
51E	Crew A Crash	cargo trailer	
84A	Ac Refueller		MSE Op

Packet 3

51	Crew A CP	5 kw	
51A	Crew A CFFET	water trailer	
51B	Crew A Bag	cargo trailer	
51C	Crew A MRP	cargo trailer	
51D	Crew A HCCR	cargo trailer	

Packet 4

29	B Flt Comd	cargo trailer	FE
9D2	LO/DR Rover		
2	B Flt CP	5 kw	
2A	B Flt Stores	cargo trailer	
2B	B Pers/Bag	cargo trailer	
52E	Crew B Crash	cargo trailer	
84B	Ac Refueller		MSE op

Packet 5

52	Crew B CP	5 kw	
52A	Crew B CFFET	water trailer	
52B	Crew B Bag		
52C	MRP	cargo trailer	
52D	Crew B HCCR	cargo trailer	

Packet 6

39	C Flt Comd	cargo trailer	FE
3	C Flt CP	5 kw	
3A	C Flt Stores	cargo trailer	
3B	C Pers/Bag	cargo trailer	
53E	Crew C Crash	cargo trailer	
84G	Refueller		MSE Op

Packet 7

53	Crew C CP	5 kw	
53A	Crew C CFFET	water trailer	
53B	Crew C Bag		
53C	MRP	cargo trailer	
53D	Crew C HCCR	cargo trailer	

Packet 8

59	Maint Flt Comd/ OSCAR	cargo trailer	
5	Maint CP	5 kw	
54A	Maint CFFET	30 kw	
54B	Bty Shop	10 kw	
54C	AVN	3 kw	
54D	AMCRO	3 kw	

Packet 9

54E	Metal	5 kw	
54F	AVS	10 kw	
54G	ALSE	3 kw	
54H	Refinishing	5 kw	
54J	COOP		COOP Supr
81D	Bin Stores - Ac		Sup Tech

Packet 10

81	SQMS		SQ
8	Log Flt CP	5 kw	Log O/Ad Op
81A	Bulk Stores - CFFET		QM Supr
81B	Stores CFFET		Sup tech
81C	Stores CFFET		Sup tech
87A	Rations/C Cook	water trailer	Chief Cook
87C	Kitchen 2	Kitchen trailer	Cook/cook
87D	Bulk Rations	cargo trailer	cook

Packet 11

84	Tpt Sect Comd		Sgt Tpt
81	DP Veh	trailer	Sup Tech
81D	Bin Stores - Veh		Veh Spares Supr
81E	Bin Stores - Veh		Sup tech
84C	Ac Refueller		MSE Op
84D	Ac Refueller		MSE Op
84F	POL misc		MSE Op

Packet 12

88	EME Office		EME supr
88C	Small motor		EME Tech
88C	Electrical/Wiring	wiring trailer	
81F	Veh Tool Control	30 kw	EME 2ic
81G	Environmental Kit		
88A	MRT		EME/EME
88B	Unit Repair Kit	5 kw	EME/EME
83A	Amb		Med A

RECCE GROUP AIDE MEMOIRE

1. **Responsibilities Of The Recce Group Comd (DCO)**:

   a. **For The Recce**:

      (1) command the Recce Group;

      (2) select a route to the new location including crash RV (or unit start point during a planned departure) and Release Point (RP);

      (3) brief the recce group to include route, order of march, ROEs, Crash RV location, RP and new location;

      (4) recce the Crash RV, RP, route and new location;

      (5) determine a new Crash RV at the new location and brief the Recce Group accordingly, in the event of hostile action while conducting the recce of the new location;

      (6) send a SITREP to the Sqn Main CP;

      (7) allocate zones and sectors (including the location of the CP, latrines, ambulance and kitchen);

      (8) sketch the RV, release point, the crash RV at the new location and the new location;

      (9) visit neighbouring units, review the range cards of adjacent sentries;

      (10) review sentry point locations, and proposed arcs of fire from SCWO;

      (11) review the track plan developed by the SCWO; and

      (12) debrief the S Ops O when back at the sqn location on conduct of the squadron deployment into the new location; and

   b. **During The Sqn Move**:

      (1) command the Advanced Party;

      (2) ensure that the Main Body Move Comd has the required info for the squadron move;

      (3) proceed with the Advanced Party to the new location to clear and secure the area; and

      (4) monitor the deployment of the unit into the new area.

2. **Responsibilities of the D Ops O**:

   a. **For The Recce**:

      (1) sketch a detailed layout of the step-up and the new Main HQ locations; and

      (2) assist the DCO in all tasks; and

   b. **During The Sqn Move**:

      (1) establish the Step-up CP in the new location under the guidance of the Sig NCM;

      (2) establish communications; and

      (3) action WUSOP 104 and assume or pass control as required.

3. **Responsibilities of Recce Group 2i/c (SCWO)**:

   a. **For The Recce**:

      (1) gather recce group personnel for orders, inspect their kit and turnout, and brief them on the chain of command in effect for the recce;

      (2) receive orders from the Recce Group Comd;

      (3) brief the road move sentries on their actions during the road move, arcs of fire and signals issues during the move;

      (4) sign the route to the new area;

      (5) assist the recce group comd in controlling the move;

      (6) position vehicles and personnel in the new location, and cam as necessary;

      (7) conduct a sweep of the area, established initial sentry positions, develop a track plan, and review the Recce Group Comd's sketch of the area;

      (8) site the guides and established final sentry points as the sweep is conducted;

      (9) adjust arcs of fire of the sqn sentries, following the review of adjacent unit sentry points and arcs of fire;

      (10) select the FARP location prior to arrival of the advance party; and

      (11) assist the recce group comd in debriefing the S Ops O on the move; and

b. **During The Sqn Move**:

   (1) meet the main body at the RP;

   (2) assist the DCO in the coordination of the arrival of the Sqn Main Body;

   (3) monitor the deployment, enforce track discipline, establish the priority of work, and monitor personnel movement and dress discipline;

   (4) when the squadron set up has been completed, provide the S Ops O with a detailed map of the new location; and

   (5) after the squadron move has been completed, collect the route signs.

4. **Responsibilities of the HQ SNCO**:

   a. **For The Recce**. Assist the Recce Group 2i/c in all tasks; and

   b. **During The Sqn Move**. As directed by the S Ops O.

5. **Responsibilities of the Sig NCM**:

   a. **For The Recce**:

      (1) distribute codes and passwords to recce group personnel;

      (2) send a SITREP to the squadron main CP as directed by the Recce Group Comd, once established in the RV at the new location; and

      (3) review the track plan between sub-units; and

   b. **During The Sqn Move**:

      (1) guide the Step-up CP on its arrival and coordinate the set up;

      (2) monitor the Comms Section's pri of work; and

      (3) assist the S Ops O in siting the squadron main CP and the HQ area when the Main Body arrives in the new location.

6. **Responsibilities of the Flight Representatives**:

   a. **For The Recce**:

      (1) advise the DCO on the selection of LZ sites;

      (2) sketch a detailed layout of their new assigned flt location; and

      (3) assist the SCWO; and

b. **During The Sqn Move**:

  (1) clear the LZ areas as required and mark LZs and Landing Points;

  (2) coordinate the marshalling aircraft (if required);

  (3) ensure Guides/sentries are appt and are aware of their responsibilities;

  (4) verify vehicle parking arrangements with the Guide;

  (5) collect data on vehicle characteristics, including size,weight, and serviceability problems;

  (6) memorize the order of march;

  (7) as the Advance Party and follow-on party vehicles arrive, brief them on the area, enforce track discipline, monitor personnel dress and vehicle cam, and debrief the Recce Group Comd on the progress of the move to the new location; and

  (8) ensure that all personnel in the flight are aware of the new location layout, defence positions and arcs of fire.

7. **Responsibilities of Sentries/Guides**:

a. **For The Recce**. As directed by the SCWO; and

b. **During The Sqn Move**:

  (1) await the Main Body at the RP;

  (2) advise the packet commanders of their respective locations and guide each vehicle, as required, using existing roads and trails;

  (3) advise the packet commanders of the main CP location, time for the next O Gp, and arcs of responsibility for local defence and sentry requirements; and

  (4) inform each vehicle commander of the following:

    (a) In and Out Routes; and

    (b) other administrative details available.

PACKET COMMANDER'S ROAD MOVE AIDE MEMOIRE

1. **Packet Commander's responsibilities for a road move**:

   a. **Before The Move**:

      (1) brief all personnel on move details as listed in the Mov O;

      (2) issue route card;

      (3) assign a 2i/c of the packet;

      (4) brief personnel in their packet on the tactical situation as well as air and ground attack drills;

      (5) supervise drivers as they perform vehicle parades and all faults recorded in the work ticket;

      (6) ensure that the packet leaves on time, in the correct sequence, interval and speed;

      (7) complete radio checks; and

      (8) if necessary, designate an escort to stay with any vehicle carrying sensitive cargo, e.g. hand grenades, codes, etc., in case of breakdown;

   b. **During The Move**:

      (1) ensure that march discipline is maintained;

      (2) allocate duties at halts, e.g. TC and supervise halt drills;

      (3) in case of an accident, take whatever actions are possible to:

         (a) prevent further accidents at that site;

         (b) offer First Aid if required;

         (c) request medical assistance if necessary;

         (d) contact MP and civil police; and

         (e) ensure that the drivers involved complete the driver's accident report found in each vehicle glove compartment; and

      (4) do not stop for broken down vehicles unless you are needed to assist at the scene of an accident or you are the designated escort for a vehicle or the vehicle is carrying stores that require special security measures. The unit and Bde Trail Parties will take care of any broken down vehicles; and

c. **Arrival In The New Location**

(1) report to your CP that your packet has arrived and provide the details of all accidents, injuries, lost or broken down vehicles; and

(2) ensure that vehicles are parked safely, using ground guides where necessary.

DRIVER'S ROAD MOVE AIDE MEMOIRE

1. **Driver's responsibilities during a road move**:

   a. **When Deploying**. Drivers must ensure that:

      (1) all vehicles are fully fuelled and carry a full Equipment Issue Scale (EIS), jerry can(s);

      (2) a daily parade is conducted and engines are run sufficiently long to recharge batteries;

      (3) the following documents are carried at all times with the vehicles:

         (a) DND 423, Driver's Report of Accident,

         (b) CFE Recovery Instructions, and

         (c) DND 610, Vehicle Daily Work Ticket;

   b. **Immediately Prior To The Move**. Drivers must ensure that:

      (1) all equipment kit and EIS articles are attached and securely stored;

      (2) the vehicle and trailer are securely connected, safety chains fastened, trailer legs locked in the "up" position and the inter-vehicular cable is firmly connected so that all lights are operational;

      (3) windshield wipers are serviceable, wash container is filled and if required, a windshield scraper; and

      (4) they are fully briefed on the move, in possession of either maps or a route card, if available, and credit cards;

   c. **During the Move**. Drivers must ensure that:

      (1) they drive IAW unit SOPs, their packet commander's instructions and commensurate with the tactical situation as well as weather and road conditions. Co-drivers will assist in the move by observing route signs, timings, possible locations for air or ground attack, as well as speed and interval spacing;

      (2) vehicle lighting is IAW issued instructions;

      (3) in the event of a break down, they fly a yellow flag and put out safety triangles (tactical situation permitting). All other vehicles except MRTs and Trail officers are to pass;

      (4) co-drivers will not sleep but will help the driver stay awake and assist the driver in doing halt parades; and

      (5) in the event of a halt, they immediately perform a vehicle halt parade, if not detailed for sentry or TC duties; and

d. **Moving Into Location**. Drivers must ensure that:

(1) they use low range, open their windows, and follow the instructions of signs or ground guides;

(2) they back their vehicle and trailer as far under overhead cover as possible and erect cam;

(3) all vehicles are camouflaged; work areas, kitchen and canteen areas are erected; and sentry locations are assigned and known, prior to tending to personal accommodations or comfort; and

(4) traffic circuits are known within the area and that their vehicle can be readily driven onto the allocated circuit.

PART 7

REPORTS AND RETURNS

GENERAL

1. Standardized messages are designed to assist staff and units in the field, working under stress and adverse conditions, by assuring speed of preparation, commensurate with the accuracy and the completeness of the information to be passed. Part 7 of the WUSOPs contains standard formats for operations and administrative reports and returns normally used at the squadron level. Reports and returns are laid out in an internationally agreed format (they are grouped and formatted under selected headings according to the NATO standard, unless stated otherwise), and they are also IAW Army FSOPs (B-GL-333-001/FP-001) and Army USOPs (B-GL-332-001/FP-001 Vol. 1) format. The format required for the remaining reports and returns can be found in the latter two documents. Serials need to be completed only where applicable (i.e. by exception), provided the meaning is clear.

2. **Time Zone**. Greenwich Mean Time (GMT) (ZULU time) will be used, unless otherwise specified.

3. Abbreviations (unless APP-6) will not be used in correspondence with non-Canadian/American formations/units.

4. The schedule for reports and returns submissions are listed in WUSOP 701.01 for Operational and 701.02 for Administrative Reports and Returns respectively.

5. It is the responsibility of the subordinate HQ to ensure their reports and returns reach their parent HQ by the required time. Reports will be sent by the quickest possible means. Command networks (VHF or HF) should not be used for routine reports.

6. **Formatted Messages**. Formatted messages must respect the following guidelines:

   a. every formatted message should have numbers to identify headings and serials. Encode numbers if the message itself has to be encoded;

   b. if the message must be sent by radio, send it in clear, if the contents permit;

   c. encode only the exploitable text;

   d. use 'by exception' reporting, e.g. send a serial only if there is something to report;

   e. encode heading or title of the message;

   f. do not send DTG of routine reports or returns by radio. Encode a DTG in the text of the message; and

   g. always encode grid refs, unless in contact.

WUSOP 701 REPORTS AND RETURNS FORMATS

701.01 Summary of Operational Reports and Returns

Rep/Rtn	Ref	Unit to Bde HQ	Eff as of	Bde HQ to Higher HQ	Eff as of	Trans Method	Remarks
Arrest Report (ARRESREP)	702.01						
Casualty Evacuation Request (CASEVACREQ)	702.02						
Personnel Report (PERSREP)	702.03						
Common Capture Report (COMCAPREP)	703.01	Time of capture	Time	Time of capture	Time	As available	
Intelligence Report (INTREP)	703.02	As required	Time indicated			Fastest available	Urgency takes precedence on classification
Intelligence Request (INTREQ)	703.03	As required	Time indicated	As required	Time indicated	As available	
Contact Report (CONTACTREP)	703.04	On contact	Time sent or time specified	On contact	Time sent or time specified	Radio	Fmns/units to send initial contact immed. Subsequent contacts to be sent via SITREPs.
Meteorological Report (METREP)	703.05						
Intelligence Summary (INTSUM)	703.06						
Situation Report (SITREP)	704.01						

Rep/Rtn	**Ref**	**Unit to Bde HQ**	**Eff as of**	**Bde HQ to Higher HQ**	**Eff as of**	**Trans Method**	**Remarks**
Incident Report (INCREP)	704.02						
Rules Of Engagement Auth (ROEAUTH)	704.03						
ROE Request (ROEREQ)	704.04						
Nuclear Strike Warning (STRIKEWARN (NUC))	704.05						For Friendly Strikes
NBC 1	704.06	As required	Time indicated	As required	Time indicated	Radio	
NBC 2	704.07	As required	Time indicated	As required	Time indicated	Radio	
NBC 3	704.08	As required	Time indicated	As required	Time indicated	Radio	
NBC 4	704.09	As required	Time indicated	As required	Time indicated	Radio	
NBC 5	704.10	As required	Time indicated	As required	Time indicated	Radio, LO, Overlay	
NBC 6	704.11	As required	Time indicated	As required	Time indicated	Radio, LO, Overlay	
BOMBREP/ SHELREP/ ROCKREP/ MORTREP	704.12	Upon incident	Time sent	Upon incident	Time sent	Radio, Tel	
Fire Mission Call For Effect (FM.CFF)	704.13A						NATO Format
Fire Mission Call For Effect (FM.CFF)	704.13B						Canadian Format
Weapon(s) Control Order (WCO)	704.14						

Rep/Rtn	Ref	Unit to Bde HQ	Eff as of	Bde HQ to Higher HQ	Eff as of	Trans Method	Remarks
Barrier Report (BARREP)	704.15	As required	Time indicated	As required	Time indicated	As available	
Obstacle Report (OBSREP)	704.16	Completion of minefield	Time indicated	Completion of minefield	Time indicated	DR, LO, tel	To be completed for all minefields.
EOD Incident Report (EODINREP)	704.19						
Patrol Report (PTLREP)	704.20	ASAP after patrol debrief	Time indicated	ASAP after patrol debrief	Time indicated	Radio, LO, tel	
EW Jamming Report (EWJAMREP)	704.21						
Meaconing, Intrusion, Jamming, Interference Warning Report (MIJIWARNREP)	704.22	As required	Time indicated	As required	Time indicated	As available	
Air Attack Warning Report (AIRATTACK WARNREP)	705.01	As required	Time indicated	As requirement	Time indicated	Radio	
Air Request (AIRREQ)	705.02	As required					Req for CAS
Helicopter Landing Site Report (HELLSREP)	705.03	As required					
Helicopter Request (HELQUEST)	705.04	As required	Time indicated	As required	Time indicated	Tel, radio, DR	
Immediate HELQUEST (IMMEDHELQUEST)	705.05	As required					
Helicopter Acknowledgement (HELACK)	705.06	As required					

Rep/Rtn	Ref	Unit to Bde HQ	Eff as of	Bde HQ to Higher HQ	Eff as of	Trans Method	Remarks
Helicopter Operational Summary (HELOPSUM)	705.07	0400 hrs	0200 hrs				
Post Flight Report (PFREP)	705.08						Formerly MISREP
Aircraft Status (ACSTAT)	705.09						
Location/ Deployment Report (LOCREP/ DEPLOYREP)	705.10						
Aircraft Crash Report (CRASHREP)	705.11						
Forward Arming and Refuelling Point Report (FARP REPORT/ FARP MOV O)	705.12						
Maintenance Repair Party Request (MRPREQ)	705.13						For aircraft repair
Field Flight Plan (FD FLT PLAN)	705.14						
Delivery Point Request (DPREQ)	705.15						
Area Damage Report (ADR)	705.16						
Transport Request (TPTREQ)	705.17						
Notice Of Crash Location Message (NOCL)	705.18						For aircraft crash
Isolated Personnel Report (ISOPREP)	705.19						For aircrew

Rep/Rtn	Ref	Unit to Bde HQ	Eff as of	Bde HQ to Higher HQ	Eff as of	Trans Method	Remarks
Airspace Control Order (ACO)	705.20						
Identification Friend or Foe Procedure (IFFPROC)	705.21						

701.02 Summary of Administrative Reports and Returns

Ser	Report	Format	Subm By	As Of	Due	Action	Remarks
1	LOGSITUNIT	706.01	Unit HQ	1900Z	2100Z	G4 Ops	
2	MAPREQ	706.02					
3	MATDEM	706.03					
4	MOVSITREP	706.04					
5	REPRECREQ	706.05	Unit HQ	1800Z	2100Z	G1	
6	GUN AND AFV STATE	706.06					

701.03 - 701.99 Not allocated

WUSOP 702 PERSONNEL ADMINISTRATION

702.01 Arrest Report (ARRESREP)

1. **Purpose**. Used to report the details of an arrest or detention by military forces:

A		**Unique ARRESTREP Serial Number**
B		Map Details: **(1)**
	1	Map/Chart Series
	2	Map/Chart Suffix No
	3	Map/Chart Sheet No **(2)**
	4	Map/Chart Edition No **(2)**
	5	Geodetic Datum **(2)**
C		Details of Arrest:
	1	Name
	2	Age
	3	Sex
	4	ID card number
	5	Address
	6	Reason for arrest
	7	Date-Time Group (DTG) of arrest

	8	Place of arrest
D		Arresting Person:
	1	Service Number
	2	Rank
	3	Name
	4	Sub-unit
E		Witness Details: **(2)**
	1	Service/ID Number
	2	Rank/Title
	3	Name
	4	Sub-unit/Address (as appropriate)
F		General Comments: **(1)**
	1	Further action taken
	2	Any items of interest
NOTES: **(1)** Optional. **(2)** Repeat as necessary (EA, EB, EC, etc.).		

702.02 Casualty Evacuation Request (CASEVACREQ)

1. **Purpose**. Used to request Medical CASEVAC support for single and multiple evacuation and by whatever means:

A		Requesting unit identification (ID)
B		Unit location
C		Pick-up Point
D		Destination
E		Casualty details **(1)**
	1	Numbers
	2	Condition
	3	Special needs
	4	Time
	5	Priority
F		Tactical details (e.g. tactical situation, direction of approach, inability to hold casualties, etc)
G		COMMs details
	1	C/S and frequency at Pick-up point
	2	Ground signals/recognition at Pick-up point
	3	C/S and frequency at destination
	4	Ground signals/recognition at destination
NOTE: (1) Repeat as necessary (EA, EB, EC, etc.).		

702.03 Personnel Report (PERSREP)

1. **Purpose**. Used to provide commanders and staff with a summary of personnel information by quantities and categories:

A		Formation/unit ident (of the formation(s)/unit(s) reporting or being reported) **(1) (2)**
B		Personnel data **(1) (3)**
	1	Total War Establishment
	2	Total attachments
	3	Total strength
	4	Total incapacitated
	5	Total dead
	6	Total PWs held
C		Time **(1) (4)**
D		Personnel assessment **(1) (5)**
E		Comd's overall personnel assessment for the formation/unit preparing the message (i.e. the master PERSREP)

NOTES:

(1) To be repeated as necessary for each formation/unit being reported.

(2) All formations/units under command or operational control are to be included. Data of formations/units under operational or tactical control are to be reported by the parent unit.

(3) Gives personnel data by category: Officers, Non-Commissioned Officers (NCOs), Other Ranks (ORs) and numbers for each data element.

(4) Gives the time qualifier and Date-Time Group (DTG) of the information for each formation/unit being reported.

(5) Provides an assessment of battleworthiness, shortage of critical personnel, etc, of each formation/unit being reported.

702.04 War Diary

1. **CF 301/302**. War Diary forms are to be used.

702.05 - 702.99 Not allocated

WUSOP 703 INTELLIGENCE

703.01 Common Capture Report (COMCAPREP)

1. **Purpose**. To report the capture of enemy PW, CED and/or CEE:

A		Capturing unit designator **(1)**
B		Date-Time Group (DTG) of capture
C		Location of capture
D	1	Numbers of PWs by rank category **(2)**
	2	Officers
	3	Non-Commissioned Officers (NCOs)
	4	Other Ranks (ORs) / Civilians **(3)**
E	1	Wounded PWs by casualty type/category
	2	Type(s)
	3	Stretcher
	4	Sitting / Walking
F	1	Document(s)
	2	Quantity
	3	Nationality of origin. Category book, codes, chart, letter, map, etc.
G	1	Equipment(s)
	2	Type(s)
	3	Quantity / Markings
H	1	Points of interest, e.g.: a. Circumstances of capture **(4)** b. Evacuation intentions where, when and by what means

NOTES:

(1) If different from the message originator.

(2) PWs are assumed to be males, this set should be repeated. E.g. DD for female PWs.

(3) Including supporting civilians.

(4) Including the direction in which the PWs were heading if on the move.

703.02 Intelligence Report (INTREP)

1. **Purpose**. Used to report essential elms of intelligence information obtained through tactical collection efforts:

A		What. The event/ incident/ activity being reported
B		When
C		Where
D		How
E		Assessment/comment to cover:
	1	Reliability
	2	Deductions
	3	Conclusions

NOTE: The INTREP provides timely information regarding incidents/events that could have an immediate and significant effect on current or pending operations in peace, time of tension and hostilities.

703.03 Intelligence Request (INTREQ)

1. **Purpose**. Used by military authorized and forces of NATO nations and commands to request intelligence from one another:

A		Request preamble (INTREQ) **(1)**
	1	Originator
	2	Request Serial Number
	3	Request Date-Time Group (DTG)
B		Request reference (REQREF) **(1)**
	1	Originator's control reference number (If allocated, if not, enter 'NIL')
	2	Degree of urgency
	3	Request priority
	4	Information/intelligence use. A brief summary of intended use
C		Request details (REQDET) **(1)**
	1	Subject type
	2	Basic Encyclopaedia (BE)/Site Number
	3	Name
	4	Information/intelligence required
D		Location (GENLOC **or** REQLOC **or** REQPOS) **(1) (2)**
E		GENLOC **(1) (2)**
	1	Country/area
	2	Place name
	3	Location – Grid, latitude/longitude or GEOREF
	4	DTG requested item was last known to be at the location
F		REQLOC **(1) (2)**
	1	Location – Grid, latitude/longitude or GEOREF
	2	Type of location **(3)**

G		REQPOS **(1) (2)**
	1	Location. Grid, latitude/longitude or GEOREF
	2	Type of location **(3)**
	3	Elevation in metres
	4	Further locations required
	5	DTG requested item was last known to be at the position
	6	Course. Cardinal heading, degrees or mils
	7	Speed. Knots or kph
H		Geographic material (map/chart information) (GEOMAT) **(1)**
	1	Series Number **(4)**
	2	Sheet **(4)**
	3	Edition **(4)**
I		REQREF **(5)**
J		Request Time (REQTIME) **(1)**
	1	Delivery DTG
	2	Latest time the information is of value
	3	Action not before DTG
	4	Specific request time coverage requirements
	5	Report/material frequency
K		Report/materiel required (REQREPR) **(1)**
	1	Description of report/material required
	2	Quantity required
	3	Security level restrictions
L		Delivery instructions (REQREPD) **(1)**
	1	Delivery address
	2	Delivery means
M		Point of Contact (POC) **(1)**
	1	Rank or appointment
	2	Contact name
	3	Unit ID
	4	Telephone number

NOTES:

(1) The word in brackets is mandatory to introduce the paragraph.

(2) Either GENLOC, REQLOC or REQPOS must be chosen.

(3) Designator for type of location from:

Code	**Meaning**
A	Pinpoint
B	Multiple
C	Line
D	Circular (state RADIUS + give radius distance)
E	Corridor (state WIDTH + give width distance)
F	Elliptical (state ELLIPSE + give major-minor axis on orientation)

G	Non-circular arc (state TRACE POINT)

(4) Repeat as necessary.

(5) For additional requests items repeat Sections B to E.

703.04 Contact Report (CONTACTREP)

1. **General**. First contact with enemy land or air forces by units will be passed from units to Bde HQ as they occur using the following format:

"**Contact**"

a. location of enemy (in clear);

b. enemy strength in personnel and/or vehicles/aircraft by type and number identified, if possible, and their activity and direct of movement. Do not try to interpret (except for recce forces) what is seen (e.g. MRB moving South) but rather report on what is seen (e.g. Six T72 Tanks, four BMPs and bridging equipment moving South);

c. own action; and

d. time of contact (if not immediately reported).

NOTE: This is a format used instead of an "In-flight report" to report any significant / suspicious activity sighted during the flight.

2. **Examples**:

a. "0 this is 6, Contact, Grid 247653. Six T-72 tanks using routes into the built up area and concentrated in that location oriented South. Continuing to observe. Time of contact 1430 hours. Over"; or

b. "0 this is 2, enemy aircraft sighting. Three HIPs, location GR 3412 moving SW. Continuing to observe. Time 1530 hours. Over".

703.05 Meteorological Report (METREP)

1. The dissemination of met information is a responsibility of the intelligence staff; some of the information requirement for the report may be requested from other staff sections and units. The METREP is passed daily to all formations and units and is unclassified.

FORMAT			EXAMPLE		
METREP (Date/Time			METREP 200600Q		
Valid (Date/Time) to (Date/Time)			Valid 200600Q-210600Q		
A		Current temperature (°C)	A		3
B		Surface wind direct (8 points) and speed (kph)	B		NW 15
C		General forecast for valid period including:	C		
	1	High/Low temperatures (°C)		1	4/7
	2	Cloud conditions		2	Nil
	3	Precipitation/Weather		3	Nil
D		Further Outlook (24 hrs)	D		Becoming cloudy after 210900Z with snow after 211200Z
E		Natural light conditions	E		
	1	Time of First Light		1	0516Q
	2	Time of Last Light		2	1932Q
	3	Time of Moon Rise (Date/Time)		3	201915Q
	4	Time Moon Sets (Date/Time)		4	212132Q

703.06 Intelligence Summary (INTSUM)

INTSUM NUMBER _______ DTG _________

1. Summary of enemy activity since last INTSUM by area of responsibility, then area of interest / influence.
2. Enemy units/formations in contact including centre point locations, strengths, and combat effectiveness.
3. Enemy Foward Line of Troops (EFLT).
4. Main effort.
5. Enemy 2nd tactical echelon.
6. Location of HQ and support elements including artillery and engineers.

7. Boundaries. Army, Corps, Division, Brigade, Regiment.
8. Details of enemy activity since last INTSUM, sub-paras including air, NBCW, EW, ground reconnaissance, artillery, engineer, airborne and heliborne. Miscellaneous, refugees, civilian morale, etc.
9. Counter-intelligence, including espionage, sabotage, subversion.
10. Assessment for period from ________z to _________z (24 hour assessment).
11. Outline assessment beyond ______z covering next 72 hours.

703.07 – 703.99 Not allocated

WUSOP 704 LAND OPERATIONS

704.01 Situation Report (SITREP)

1. SITREPs will be passed on timings in accordance with SOPs or Orders, or when a significant event occurs. The format will comprise the following:

		SITREP
A		**Enemy**. Units in contact, enemy shelling, estimation of strength, estimation of morale, possible enemy action.
B		**Friendly**. Location of troops by encoded grid, activity and intentions.
C		**Administration**. Any immediate administrative requirements at the time (fuel, ammunition, etc.).
D		**General**. Information not covered elsewhere, e.g. suggest c/s 24 clear the woods at Grid 123456".

704.02 Incident Report (INCREP)

1. **Purpose**. To report any significant incident caused by terrorism, civilian unrest, natural disaster or media activity: **(1)**

A		Incident type **(2)**
B		Map details: Map/Chart Series Map/Chart Suffix No Map/Chart Sheet No **(3)** Map/Chart Edition No **(3)** Geodetic Datum **(3)**
C		Source of information:
	1	Evaluation
	2	Source type **(4)**
	3	Other details (as appropriate)
D		Date-Time Group (DTG) validity of source material
E		Location of incident:
	1	Grid Ref/GEOREF
	2	Description

F		Hostile/Terrorists details, to include as appropriate/where known:
	1	Personnel involved
	2	Organization involved
	3	Weapons/explosives/vehicles used
	4	Direction of movement
	5	Means of travel
G		Outline of events. A brief free text description of the incident, damage caused and the effect on operations
H		Own casualties:
	1	Dead
	2	Wounded/injured
I		Hostile/Terrorist casualties:
	1	Dead
	2	Wounded/injured
J		Civilian casualties:
	1	Dead
	2	Wounded/injured
K		Arrest details: **(5)**
	1	Name
	2	Age
	3	Sex
	4	ID card number (military/civilian)
	5	Address
	6	Reason for arrest
	7	DTG of arrest
	8	Place of arrest
	9	Remarks

NOTES:

(1) The INCREP is an 'As required' report suited to Peace Support Operations (PSO); as such it is unlikely to be called for in High Intensity Conflict (HIC) Ops.

(2) Defines the type of incident using the appropriate data code selected from:

Terrorism		**Civil Unrest**	
Type/Data Code		**Type/Data Code**	
Bombing:		Riot	CR
Deliberate	TBD		
Proxy	TBPR		
Postal	TBPO		
Shooting:		Civil Disobedience	CCD
Ambush	TSAM		
Assassin	TSAS		
Random	TSRA		
Sniper	TSSN		
Hijack	THIJ		

Hostage taking	THOS	Strike	CST
Murder	TMUR	Picketing	CPIC
Intimidation	TINT	Establishing no-go areas	CNOG
Natural Disaster		**Media Attention**	
Type/Data Code		**Type/Data Code**	
Drought	NDR	Local	MAL
Earthquake	NEQ	National	MAN
Famine	NFA	International	MAI
Pestilence	NPE		
Disease	NDIS		
Flood	NFLD		
Typhoon	NTYP		

(3) Repeat as necessary.

(4) Source type selected from:

Information Source
Government Agency
Humanitarian Relief Organization
Informer
Police
Media
Military Intelligence
United Nations Agency
Other – state source

(5) Repeat K1, K2, K3, etc, for each person arrested.

704.03 Rules of Engagement Authorization (ROEAUTH)

1. To be submitted at Fmns/TF level, IAW B-GL-333-001/FP-001, USOP 704.03.

704.04 Rules of Engagement Request (ROEREQ)

1. To be submitted at Fmns/TF level, IAW B-GL-333-001/FP-001, USOP 704.04.

704.05 Friendly Nuclear Strike Warning (STRIKEWARN(NUC))

1. **Purpose**. Used to provide friendly forces with the necessary information needed to take safety precautions against a friendly nuclear burst:

NBC Event		**STRIKEWARN(NUC)**
AW		STRIKEWARN nickname or target number for multiple or single strike(s), as appropriate
DW		Multiple strike: Date-Time Group (DTG) strike (pulse) will start followed by DTG strike (pulse) will end (ZULU time) Single strike: DTG of strike followed by DTG after which strike will be cancelled
F1		Multiple. Grid Ref of Minimum Safe Distance (MSD) 1 box Single. MSD1 in 100s of m followed by GR of Ground Zero (GZ) or Desired GZ (DGZ)
F2		Multiple. GR of MSD2 box Single. MSD2 in 100s of m (followed by GR of GZ or DGZ if not included in F1) **(1)**
F3		Multiple. GR of MSD3 box Single. MSD3 in 100s of m (followed by GR of GZ or DGZ if not included in F1/F2) **(2)**
HW		Number of surface or subsurface bursts
IW		Number of bursts in multiple strike
ACK		Acknowledge **(3)**

NOTES:

(1) If F1 is used F2 must be completed.

(2) If F2 is used F3 must be completed.

(3) An acknowledgement is essential on receipt of a STRIKEWARN (NUC).

704.06 NBC 1 Biological/Chemical Report (NBC1 (BIO/Chem)) Nuclear Report (NBC1 (NUC))

1. **Purpose**. Used to provide the observer's initial report giving basic data on a single biological, chemical or nuclear attack:

a. **Biological/Chemical Report (NBC1(BIO/CHEM))**:

NBC Event	**BIOLOGICAL OR CHEMICAL**
A	Strike Serial Number
B	Grid Ref of Observer **(1)**
C	Direction of attack from the observer measured clockwise from grid North, true North or magnetic North (state which) in degrees or mils (state which) **(1)**
D	Date-Time Group (DTG) attack started
E	DTG attack ended
F	Location of attack or area attacked (coordinates or place, real or estimated state which) **(2)**
G	Means of delivery or kind of attack (guns, mortars, multi-rocket launcher systems (MRLS), missiles, bombs, spray state which)
H	Type of agent. P (Persistent) or NP (Non-Persistent). Type of burst (air (with release height), surface or unknown state which)
S	DTG contamination detected
Y	Representative downwind direction in degrees or mils (state which) and representative wind speed in km/h or knots (state which)
ZB	If used, provides amplifying remarks

NOTES:

(1) Items BRAVO and CHARLIE are mandatory if FOXTROT is not used.

(2) Item FOXTROT is mandatory if items BRAVO and CHARLIE are not used

b. **Nuclear Report (NBC1 (NUC))**

NBC Event	**NUCLEAR**
A	Strike Serial Number
B	Grid Ref of observer **(1)**
C	Direction of attack from the observer measured clockwise from grid North, true North or magnetic North (state which) in degrees or mils (state which) **(1)**
D	Date-Time Group (DTG) of attack or detonation
F	Location of attack or area attacked (coordinates or place, real or estimated state which) **(2)**
G	Means of delivery (suspected or observed – state which)
H	Type of burst (air, surface or unknown – state which) including height
J	Flash-to-bang time in seconds
L	Nuclear burst angular cloud width measured at H+5 minutes in degrees or mils (state which)
M	Stabilized cloud top angle and/or cloud bottom angle (state which) or cloud top height and/or cloud bottom height (state which) measured at H+10 min in degrees/mils, metres/feet (state which)
S	DTG of readings
ZB	If used, provides amplifying remarks

NOTES:

(1) Items BRAVO and CHARLIE are mandatory if FOXTROT is not used.

(2) Item FOXTROT is mandatory if items BRAVO and CHARLIE are not used.

704.07 NBC 2 Biological/Chemical Report (NBC2 (BIO/Chem)) Nuclear Report (NBC2 (NUC))

1. **Purpose**. Used to disseminate available data of a single biological, chemical or nuclear attack:

a. **Biological/Chemical report (NBC2 (BIO/CHEM))**

NBC Event		**BIOLOGICAL OR CHEMICAL**
A		Strike Serial Number
D		Date-Time Group (DTG) attack started
E		DTG attack ended
F		Location of attack or area attacked (coordinates or place, real or estimated – state which)
G		Means of delivery or kind of attack (guns, mortars, multi-rocket launcher systems (MRLS), missiles, bomb(let)s, spray state which)
H		Type of Agent. P (Persistent) or NP (Non-Persistent). Type of burst (air (with release height), surface or unknown (state which))
Y		Wind details:
	1	Representative downwind direction in degrees/mils (state which)
	2	Representative downwind speed in km/h or knots (state which)
ZA		Actual weather conditions:
	1	Air stability conditions
	2	Surface air temp/unit of measure
	3	Relative humidity
	4	Significant weather phenomena
	5	Cloud cover
ZB		If used, provides amplifying remarks

b. **Nuclear Report (NBC2 (NUC))**

NBC Event	**NUCLEAR**
A	Strike Serial Number
D	Date-Time Group (DTG) of attack or detonation
F	Location of attack or area attacked (coordinates or place, real or estimated state which)
G	Means of delivery (suspected or observed – state which)
H	Type of burst (air, surface or unknown – state which) including height

N	Estimated yield (in KT)
ZB	If used, provides amplifying remarks

704.08 NBC 3 Biological/Chemical Report (NBC3 (BIO/Chem)) Nuclear Report (NBC3 (NUC))

1. **Purpose**. Used to pass immediate warning of predicted contamination and hazard areas following biological, chemical or nuclear attack:

a. **Biological/Chemical Report (NBC3 BIO/CHEM)**

NBC Event		**BIOLOGICAL OR CHEMICAL**
A		Strike Serial Number
D		Date-Time Group (DTG) attack started
E		DTG attack ended
F		Location of attack or area attacked (coordinates or place, real or estimated state which)
H		Type of agent P (Persistent) or NP (Non-Persistent) type of burst (air (with release height), surface or unknown state which)
PA		Predicted hazard area coordinates to define the geographic position of the hazard area, hazard area radius and unit of measurement
PB		Duration of hazard (in days) for:
	1	Atk area
	2	Hazard area
Y		Wind details:
	1	Representative downwind direction in degrees/mils (state which)
	2	Representative downwind speed in kph or knots (state which)
ZA		Actual weather conditions:
	1	Air stability conditions
	2	Surface air temp/unit of measure
	3	Relative humidity
	4	Significant weather phenomena
	5	Cloud cover
ZB		If used, provides amplifying remarks

b. **Nuclear Report (NBC3 (NUC)**

NBC Event		**NUCLEAR**
A		Strike Serial Number
D		Date-Time Group (DTG) of attack or detonation
F		Location of attack or area attacked (coordinates or place, real or estimated state which)
H		Type of burst (air, surface or unknown state which) including height
N		Estimated yield (in KT)
PA		Predicted hazard area. Coordinates to define the geographic position of the hazard area, hazard area radius and unit of measurement
Y		Left and right radial lines and unit of measurement in degrees/mils (state which)
Z		Fallout prediction parameters:
	1	Effective wind speed and unit of measurement
	2	Downwind distance of Zone 1 and unit of measurement
	3	Cloud radius and unit of measurement
ZB		If used, provides amplifying remarks

704.09 NBC 4 Biological/Chemical Report (NBC4 (BIO/Chem)) Nuclear Report (NBC4 (NUC))

1. **Purpose**. Used to report the survey and monitoring results following a biological, chemical or nuclear attack:

a. **Biological/Chemical Report (NBC4 BIO/CHEM))**

NBC Event		**BIOLOGICAL OR CHEMICAL**
A		Strike Serial Number
H		Type of agent. P (Persistent) or NP (Non-Persistent). Type of burst (air (with release height), surface or unknown state which)
K		Crater indicator and width (in m) or terrain and vegetation description

Q	1 2 3	Location of readings Location where samples obtained Details of type of sample
S	1 2	Date-Time Group (DTG) of readings in ZULU time or DTG contamination initially detected in ZULU time
ZB		If used, provides amplifying remarks

b. **Nuclear Report (NBC4 (NUC))**

NBC Event		**NUCLEAR**
A		Strike Serial Number
K		Crater indicator and width (in km or m) or terrain and vegetation description
Q	1 2 3	Location of readings Location where samples obtained Details of type of sample
R		Radiation dose rate in cGy/Hr and other details about the sample, e.g. trend and delay
S		Date-Time Group (DTG) of readings in ZULU time
ZB		If used, provides amplifying remarks

704.10 NBC 5 Biological/Chemical Report (NBC5 (BIO/Chem)) Nuclear Report (NBC5 (NUC))

1. **Purpose**. Used to pass actual information on areas of biological/chemical or nuclear contamination:

a. **Biological/Chemical Report (NBC5 (BIO/CHEM))**

NBC Event		**BIOLOGICAL OR CHEMICAL**
A		Strike Serial Number
D		Date-Time Group (DTG) of detonation or attack starting
H		Type of agent P (Persistent) or NP (Non-Persistent) – type of burst (air (with release height), surface or unknown state which)
S		DTG of readings
T		DTG in ZULU time of latest survey of contamination in the area
X		Area of actual contamination (Yellow)
ZB		If used, provides amplifying remarks

b. **Nuclear Report (NBC5 (NUC))**

NBC Event		**NUCLEAR**
A		Strike Serial Number
D		Date-Time Group (DTG) of attack or detonation
O		Reference DTG in ZULU time for estimating contours when not H+1 **(1)**
T		DTG of latest survey/H+1 in ZULU time **(2)**
U		1000 cGy/Hr Line (Red)
V		300 cGy/Hr Line (Green)
W		100 cGy/Hr Line (Blue)
X		30 cGy/Hr Line (Black)
ZB		If used, provides amplifying remarks
NOTES: **(1)** If TANGO is not used, item OSCAR is mandatory. **(2)** If OSCAR is not used, item TANGO is mandatory.		

704.11 NBC 6 – Biological/Chemical Report (NBC6 (BIO/Chem))

1. **Purpose**. Used to pass detailed information on a biological or chemical attack:

NBC Event		**BIOLOGICAL OR CHEMICAL**
A		Strike Serial Number
D		Date-Time Group (DTG) of attack or detonation
H		Type of agent P (Persistent) or NP (Non-Persistent) type of burst (air (with release height), surface or unknown – state which)
Q	1 2 3	Location of readings Location where samples obtained Details of type of sample
S	1 2	DTG of readings in ZULU time or DTG contamination initially detected in ZULU time
ZB		If used, provides amplifying remarks

704.12 BOMBREP/SHELREP/ROCKREP/MORTREP (BOMBREP)

1. **Purpose**. Used to report hostile bomb, shell, rocket or mortar attack:

A		Map details: **(1)** Map/Chart Series Map/Chart Suffix No Map/Chart Sheet No **(2)** Map/Chart Edition No **(2)** Geodetic Datum **(2)**
B		Bombardment type **(3)**
C		Observer's location:
	1	UTM Easting (in metres)
	2	UTM Northing (in metres)
	3	Altitude (in metres)
D		Observer's Grid Zone
E		Indicators of Hostile Battery (HB) location:
	1	Observer/HB bearing (in mils) **(4)**
	2	Observer/HB range (in metres)
	3	Flash/Bang Time (in seconds)
F		HB location:
	1	UTM Easting (in metres)
	2	UTM Northing (in metres)
	3	Altitude (in metres)
G		HB Grid Zone
H		Bombardment duration: FROM DTG)TO DTG
I		Bombarded area location:
	1	UTM Easting (in metres)
	2	UTM Northing (in metres)
	3	Altitude (in metres)
J		Bombarded area Grid Zone
K		Bombarded area size:
	1	Length or radius (in metres)
	2	Width (in metres)
	3	Attitude azimuth of the longest axis (in mils)
L		Own troops target type **(5)**
M		Target sub-type **(5)**
N		Degree of protection **(6)**

O		Target strength
P		Enemy equipment(s)
Q		Nature of fire **(7)**
R	 1 2 3 4 5 6	Details of fire: Type of projectile Calibre of projectile Approximate size of projectile Aircraft/helicopter type Number of projectiles Bombardment intensity
S		Damage inflicted as a % of friendly unit capability
T		Report accuracy
U		Boundary/Checked Zone flag details

NOTES:

(1) Use of this serial is optional.

(2) Repeat as necessary.

(3) Selected from:

Code	**Designation**
ARTY	Guns
MORT	Mortars
RKTMSL	Rockets
SSM	Surface to Surface Missiles
ACFT	Aircraft
HEL	Helicopter
UNK	Unknown

(4) If GRID is specified this gives the direct of the HB from the bombarded location.

(5) Selected from:

TYPE CODE	**TYPE DEFINITION**	**SUBTYPE CODE**	**SUBTYPE DEFINITION**
ADA	Air Defence Arty	UNK LT MDM HV MSL	Unknown Lt Medium Heavy Missile

TYPE CODE	TYPE DEFINITION	SUBTYPE CODE	SUBTYPE DEFINITION
		POS	Position
ARMOR	Armour	UNK LT MDM HV APC POS	Unknown Lt Medium Heavy Armoured Personnel Carrier Position
ARTY	Arty	UNK LT MDM HV POS	Unknown Lt Medium Heavy Position
ASSY	Assembly Areas	UNK TRP TRPVEH TRPMEC TRPARM	Unknown Troops Troops and Vehicles Mechanised Troops Troops and Armour
BLDG	Building	UNK WOOD MASNRY CONCR METAL SPCL	Unknown Wood Masonry Concrete Metal Special Purpose
BRIDGE	Bridge	UNK FTPON VEHPON CONCR WOOD STEEL SITE RAFT FERRY	Unknown Foot Pontoon Vehicle Pontoon Concrete Wood Steel Site Raft Ferry
CEN	Centre	UNK SMALL BN REGT DIV FWD	Unknown Small Bn Regiment Division Forward

TYPE CODE	**TYPE DEFINITION**	**SUBTYPE CODE**	**SUBTYPE DEFINITION**
EQUIPMENT	Equipment	UNK RADAR EW SLT GDNC LS	Unknown Radar Electronic Warfare Search light Guidance Loudspeaker
MORT	Mortars	UNK LT MDM HV VH POS	Unknown Lt Medium Heavy Very Heavy Position
PERSONNEL	Personnel	UNK INF OP PTL WKPTY POS	Unknown Infantry Observation Post Patrol Work Party Position
RKTMSL	Rockets/ Missiles	UNK APERS LTMSL MDMMSL HVMSL ATANK POS	Unknown Anti-Personnel Lt Missile Medium Missile Heavy Missile Anti-Tank Position
SUPPLY	Supply Dump	UNK CLV CLIII CLIV CLI CLII	Unknown Class 5 Class 3 Class 4 Class 1 Class 2
TER	Terrain Features	UNK ROAD JCT HILL DEFILE LDGSTR RR	Unknown Road Road Junction Hill Defile Landing Strip Railroad

TYPE CODE	TYPE DEFINITION	SUBTYPE CODE	SUBTYPE DEFINITION
VEH	Vehicles	UNK LTWHL HVWHL RECO BOAT ACFT HEL	Unknown Lt Wheeled Heavy Wheeled Reconnaissance Boats Aircraft Helicopter
WPN	Weapons	UNK LTMG ATG HVMG RCLR	Unknown Lt Machine Gun Anti-Tank Gun Heavy Machine Gun Recoilless Rifle

(6) Selected from:

Code	Definition
UNK	Unknown
PRAND	Half Prone, Half Standing (but all prone within 15 seconds)
PRONE	All prone
PARTDUGIN	Some dug in
PARTCOVER	Some overhead protection
DUGIN	All dug in
COVER	All dug in with overhead protection

(7) Selected from: FPF, Coord Illumination, Continuous Illumination, Nuclear, FFE, Adjust, Adj FFE, HF and Smoke.

704.13A Fire Mission Call for Fire (FM.CFF)

1. **Purpose**. Used to transmit initial Fire for Effect requests for fire and/or orders to fire. (NATO APP-6 Format. See 704.13B for Canadian Artillery CFF Format).

A		Map details: **(1)** Map/Chart Series Map/Chart Suffix No Map/Chart Sheet No **(2)** Map/Chart Edition No **(2)** Geodetic Datum **(2)**
B		Target Number
C		Number of fire units to fire for effect
D	 1 2 3	Target location: UTM Easting (in metres) UTM Northing (in metres) Altitude (in metres)
E		Target Grid Zone
F	 1 2 3	Target description: Target type **(3)** Target subtype **(3)** Degree of protection **(4)**
G		Target strength
H	 1 2 3	Target size: Length or radius (in metres) Width (in metres) Attitude azimuth of the longest axis (in mils)
I		Report value accuracy of the target location (in metres)
J		Trajectory type from: HIGH - High Angle LOW - Low Angle
K	 1 2 3	Munitions in effect: **(5)** Number of volleys/rockets Fire for effect projectile **(6)** Fire for effect fuse **(6)**
L		Effects required (as %)
M	 1 2	Method of control: Method **(7)** Time on target or time to fire

N		Firing interval:
	1	Interval (in seconds)
	2	Duration (in minutes)
O		End of mission **(8)**

NOTES:

(1) Use of this serial is optional.

(2) Repeat as necessary.

(3) Selected from:

Code	**Designation**
ARTY	Guns
MORT	Mortars
RKTMSL	Rockets
SSM	Surface to Surface Missiles
ACFT	Aircraft
HEL	Helicopter
UNK	Unknown

(4) Selected from:

DEFINITION		
CODE	**FIRST VOLLEY**	**SECOND VOLLEY**
PRAND	Half Prone, Half Standing	All Prone
PRONE	Prone	Prone
PRUG	Prone	Dug In
PROVER	Prone	Under Overhead Cover
DUGIN	Dug In	Dug In
COVER	Under Overhead Cover	Under Overhead Cover

(5) The command Fire For Effect (FFE) may be repeated as a group up to two times, initial plus one. The first iteration shall be the first selected shell/fuze combination, the second iteration shall be the second selected shell/fuze combination. However, special considerations state that currently only one iteration shall be specified.

(6) Selected from:

WPN TYPE	PROJECTILE CODE	PROPELLANT CODE	FUZE CODE
105MM	HEA = High Explosive HEC = APICM Anti-Personnel Sub-munition		CP = Concrete Piercing PD = Point Detonation PDD = Delay TI = Time Action VT = Variable Time VTD = Variable Time Desensitised MRP = Multi-Role Fuzz Point Detonation MRT = Multi-Role Fuzz Time MRV = Multi-Role Fuse Variable Time MRD = Multi-Role Fuse Delay
155MM	HEA = High Explosive HEI = DPICM Anti-Tank Sub-munition HED = Dual Purpose ICM HER = Rocket AML = Anti-Material Mine, Long Delay AMS = Anti-Material Mine, Short Delay	GREEN WHITE XRNGA = (Extended Range – Type A) XRNGB = (Extended Range – Type B)	CP = Concrete Piercing PD = Point Detonation PDD = Delay TI = Time Action VT = Variable Time VTD = Variable Time Desensitised MRP = Multi-

WPN TYPE	**PROJECTILE CODE**	**PROPELLANT CODE**	**FUZE CODE**
	APL = Anti-Personnel Mine, Long Delay APS = Anti-Personnel Mine, Short Delay		Role Fuse Point Detonation MRT = Multi-Role Fuse Time MRV = Multi-Role Fuse Variable Time MRD = Multi-Role Fuse Delay
MLRS	JED = Dual Purpose ICM JEE = DPICM Anti-Personnel and Anti-Material Sub-munitions JEH = Reduced Range Practice Rocket JMT = Anti-Tank Mine JTA = MLRS Terminally Guided Warhead JTB = MLRS SADARM JTC = ATCMS Brilliant Anti-Tank JEL = Extended Range Rocket		TI = Time Action

(7) Selected from:

Code	**Meaning**
AMC	At My Command
TOT	Time On Target
WR	When Ready
TTF	Time To Fire

(8) Selected from:

Code	Meaning
Y	End of Mission
R	End of Mission

(9) Record as Target.

704.13B Fire Mission Call For Fire (FM.CFF) From A Helicopter AOP To A Canadian Battery

1. **Purpose**. Used to transmit initial Fire for Effect requests for fire and/or orders to fire. An example of a Call For Fire (CFF) from a helicopter AOP to a Canadian field artillery battery follows:

SER	AOP'S SEQUENCE OF ORDERS	EXAMPLE OF A HELICOPTER AOP FIRE MISSION CFF
1	**AOP's Identification**	"2, THIS IS HOTEL 22.
2	**Warning Order**	FIRE MISSION BATTERY. OVER."
3	**Location of Target**	"GRID 158346, ALTITUDE 100.
4	Direction	DIRECTION 1240.
5	**Description of Target**	MACHINE GUNS IN RAVINE, RADIUS 25.
6	Type of Engagement	ADJUSTING ZP 2230.
7	Trajectory	HIGH ANGLE.
8	Ammunition	3 ROUNDS, TIME IN EFFECT.
9	Distribution of Fire	CONVERGE.
10	At My Command	AT MY COMMAND.
11	**Method of Adjustment or Order for FFE**	2 GUNS, ADJUST FIRE. OVER"
NOTE: Obligatory Orders are highlighted in **Bold**.		

704.14 Weapon(s) Control Order (WCO)

1. **Purpose**. Used to give a new AD Weapon(s) Control Order over a specific area(s) for a given period of time:

A		Period of Time. Effective Date-Time Groups (DTG) of start and end of the period covered by the WCO
B		Weapon(s) Control Order **(1)** **(2)**
C		ID of AD Unit(s) affected by the specific weapons control status imposed at BRAVO: **(2)**
	1	Unit ID
	2	Unit ID
	3	Unit ID
D		Definition of airspace control means to be implemented. Airspace corridors, designated beacons, other relevant information **(2)** **(3)**
E		Area the AD area of coverage affected by the weapons control status imposed at BRAVO **(2)** **(4)**
F		Sector definition of the arc(s) where the weapon control status imposed at BRAVO applies **(2)** **(5)**
G		Friendly aircraft information:
	1	Number
	2	Type(s)
	3	Flight path(s)
	4	IFF details (if appropriate)
	5	ID details
H		Remarks. Amplification of the WCO (as necessary)

NOTES:

(1) Selected from:

Code	Meaning
1	Weapons Free
2	Weapons Tight
3	Weapons Hold

(2) Message serials BRAVO through FOXTROT may be repeated as a block (segment) for each different WCO to be in force during the period specified at ALPHA.

(3) Selected from:

Code	**ACO Means**
AR	Air Route
TC	Transit Corridor
TL	Traverse Level
LLTR	Low Level Transit Route
SC	Special Corridor
BDZ	Base Defence Zones
ROZ	Restricted Operations Zones
WFZ	Weapons Free Zones
HIDACZ	High Density Airspace Control Zones
ACL	Atlantic Coordinated Route Low
ACHR	Atlantic Coordinated Route High
IFFON	IFF Switch On Line
IFFOFF	IFF Switch Off Line
RBFA	Rear Boundary of the Forward Area

(4) Single location is assumed to cover a 6 km radius.

(5) Arcs will vary where different WCOs apply.

704.15 Barrier Report (BARREP)

1. **Purpose**. Used to pass info on friendly obstacles, current and planned, in the Own Force's barrier plan:

A		Amendment
	1	YES/NO
	2	Designator **(1)**
B		Operation Order (OPORD) reference (if applicable)
C		Map details
		Map/Chart Series
		Map/Chart Suffix No
		Map/Chart Sheet No **(2)**
		Map/Chart Edition No **(2)**
		Geodetic Datum **(2)**

D	1 2	Barrier Data: **(2)** Obstacle No Obstacle Nickname Obstacle Zone/Belt Name/No Task Serial No Grid Ref **(2)** Obstacle type **(2) (3)** Generic mine type **(2) (4)** Obstacle status **(2) (5)** Barrier Data: etc,
E	1 2	Obstacle effective times: **(2)** START DTG END DTG Obstacle effective times: etc,
F		Special remarks
G	1 2 3	Acknowledge – YES/NO Instructions for acknowledging Force/unit to acknowledge **(2)**

NOTES:

(1) If the answer at A is YES, a unique amendment designator must be included here.

(2) Repeat as necessary.

(3) Specific obstacle type selected from:

Code	Meaning
BE	Berm
CR	Crater (Road)
MF	Minefield
DM	Demolition
WO	Barbed wire obstacle
DG	Dry gap
TD	Anti-tank ditch
WW	Waterway
AB	Abatis
FL	Flooding

BP	Beam post obstacle
LS	Landslide
FB	Falling block obstacle
UX	UXO
BT	Booby traps
OT	Other **(4)**
DT	Dragon teeth

(4) Selected from:

Code	**Meaning**
A	Area
P	Anti-personnel
H	Anti-helicopter
T	Anti-tank
N	No mines
U	Unknown
O	Off route

(5) Selected from:

Code	**Meaning**
PRO	Proposed
PAS	Passable
PLR	Planned Reserve
BRE	Breached
PLP	Planned Preliminary
CLR	Cleared
IMP	Prepared for Execution
CAN	Cancelled
EXE	Executed
MRK	Marked

704.16 Obstacle Report (OBSREP)

1. **Purpose**. To report obstacles through the chain of comd:

A	1	Amendment
	2	YES/NO
		Designator **(1)**
B		Map details:
		Map/Chart Series
		Map/Chart Suffix No
		Map/Chart Sheet No **(2)**
		Map/Chart Edition No **(2)**
		Geodetic Datum **(2)**
C		Location and nearest feature
	1	Geographic place name
	2	Grid Ref (2)
D		Obstacle data:
	1	Mines present indicator
	2	Generic mine type **(2) (3)**
	3	Obstacle type **(2) (4)**
	4	Obstacle characteristics **(2) (5)**
E		Dimensions:
	1	Length in m
	2	Width in m
	3	Depth in m
	4	Height in m
F	1	Entry point: Grid Ref
	2	Exit point: Grid Ref
G		Special Remarks
H	1	Acknowledge. YES/NO
	2	Instructions for acknowledging
	3	Force/unit to acknowledge **(2)**

NOTES:

(1) If the answer at A is YES a unique amendment designator must be included here.

(2) Repeat as necessary.

(3) Selected from:

Code	Meaning
A	Area
H	Anti-helicopter

N	No mines
O	Off-route
P	Anti-personnel
T	Anti-tank
U	Unknown

(4) Specific obstacle type selected from:

Code	**Meaning**
BE	Berm
CR	Road crater
IMP	Prepared
MF	Minefield
DM	Demolition
PAS	Passable
WO	Barbed wire obstacle
DG	Dry gap
BRE	Breached
MSL	Mines surface laid
TD	Anti-tank ditch
WW	Waterway
MRK	Marked
AB	Abatis
FL	Flooding
COV	Covered by enemy fire
BP	Beam post obstacle
LS	Landslide
FB	Falling block obstacle
UX	UXO
BT	Booby traps
OT	Other (specified)
DT	Dragon teeth

704.17 – 704.18 Not applicable

704.19 EOD Incident Report (EODINREP)

1. **Purpose**. Used to submit the initial report of an unexploded ordnance (UXO) incident giving as much basic info as is available. The EODINCREP is to be used by all personnel reporting such an incident and may be used for reporting one or more apparently similar items:

		PART 1
A		Location details of the UXO:
	1	Map details: Map/Chart Series Map/Chart Suffix No Map/Chart Sheet No **(2)** Map/Chart Edition No **(2)** Geodetic Datum **(2)**
	2	Location relative to a known installation, building, landmark or prepared grid
	3	Ease of access: A. On foot, from EASY/DIFFICULT/IMPOSSIBLE B. By light vehicle, from EASY/DIFFICULT/ IMPOSSIBLE
B		UXO type/description:
	1	Confirms the type of UXO **(3)**
	2	Unknown UXO details **(4)**
	3	Indication of chemical or biological (CB) agent hazard **(5)**
C		Quantity of UXOs
D		Date-Time Group (DTG) of attack/time of impact/time of laying
E		Effect on operations **(6)**
F		Evacuation/safety measures:
	1	Confirms measures taken (7)
	2	Measures taken at site YES/NO (if YES they are to be specified)
G		NBC threat **(8)**
H	1	Tactical information of value – enemy forces, friendly forces, hazards, etc
	2	Point of contact (POC) details: Name Rank or appointment Telephone/Fax No(s) (secure and insecure) Radio frequencies/callsigns

I	 1 2	Rendezvous (RV) details for the Explosive Ordnance Reconnaissance (EOR)/Explosive Ordnance Disposal (EOD) party: Grid Ref Route description
		PART 2 **(9)**
J	 1 2	EOD tasking details: ID of EOR team tasked Tasking order, recommendations, limitations and requirements for a COMTECHREP Type B **(10)**
X		Assigned unique incident number
Y		Category of EOD incident A, B, C or D **(11)**

NOTES:

(1) Users include Observation/Reconnaissance/Damage Assessment/Damage Report/Chemical Detection/EOR and EOD Teams.

(2) Repeat as necessary.

(3) Selected from:

Code	Type of UXO	Code	Type of UXO
01	Bombs	10	Anti-submarine weapons
02	Grenades	11	Sea mines
03	Mines (Land)	12	Pyrotechnics
04	Missiles	13	Demolition equipment
05	Mortars	14	Improvised explosive devices (IED)
06	Projectiles	15	Miscellaneous
07	Rockets	16	Fuses
08	Sub-munitions	17	Containers and dispensers
09	Torpedoes	18	Unknown

(4) UXO details are to be provided as accurately as possible using the following categories:

CODE	CONVENTIONAL UXO	IED
01	Circumstances of discovery	Incident description
02	Visibility of UXO	DTG found
03	UXO appearance. Shape and condition	Appearance

04	UXO dimensions. Length, width, diameter	Size
05	Colours	Are there any visible wires?
06	Markings	What method of fastening has been used (where appropriate)
07	Condition of UXO (rusted or leaking, new or old, broken or intact)	If the IED is a suspected letter bomb state: Postmark Is recipient a likely target? Is IED bulky at one end? – Envelope or package type/makeup – Why is it suspicious?
08	For munitions under water add: Prevailing conditions. Depth of UXO. How is UXO marked?	Was any warning given?
09		Are there any secondary hazards?
10		Are there any witnesses available?
11		Any other relevant information

(5) Selected from:

Code	Meaning
01	No CB hazard present
02	A CB hazard is present
03	Not known
04	Totally disrupted

(6) Selected from:

Code	Effect on Operations
01	Nil
02	Minor
03	Severe

(7) Selected from:

Code	Meaning
01	No evacuation ordered
02	Evacuation in progress
03	Evacuation complete
04	Black

(8) Selected from:

Code	NBC State
01	Low
02	Medium
03	High

(9) PART 2 of the EODINCREP is to be completed by the EOD Tasking Authorized on receipt of PART 1, not by the originator of PART 1.

(10) The COMTECHREP Type B msg is not included in this Part.

(11) EOD incident categories as following:

Code	Category Meaning
A	EOD incidents constituting a grave and immediate threat. Incidents to be given top priority. Disposal operations are to be started immediately regardless of personal risk.
B	EOD incidents constituting an indirect threat. Safe waiting period may be observed.
C	EOD incidents constituting little threat. Dealt with after A and B with minimal personal danger.
D	EOD incidents that represent no threat at present.

704.20 (Not applicable)

704.21 EW Jamming Report (EWJAMREP)

1. **Purpose**. Used by any victim of hostile EW attack. This is a simple report designed for use by non-specialists from the lowest levels upwards. Specialists should use the MIJIWARNREP:

A		Jamming
	1	Type of jamming/deception **(1)**
	2	Strength of jamming **(2)**
	3	Mode of jamming **(3)**
	4	Frequency/channel affected
B		Location of victim
C		Time effective Date-Time Group (DTG) of start and duration of attack in minutes
D		Additional information
E		Declassification trigger time, date or event
NOTES:		
	(1)	From music, tones, CW, noise, voice.
	(2)	Weak, medium, or strong
	(3)	Responsive, constant.

704.22 Meaconning, Intrusion, Jamming, Interference Warning (MIJIWARNREP)

1. **Purpose**. Used to warn of hazardous EW sit caused by meaconing, intrusion, jamming and interference (MIJI) incidents which are of hostile, friendly (inadvertent) or unknown origin. Format to be completed in conjunction/coordination with the Int Staff and Sig O:

A		**MIJI incident type**
B		Unit designator(s) of affected unit(s) **(1)**
C		System(s) affected **(1)**
D		Location **(1)**
	1	Stage of confirmation **(2)**
	2	Geographic type
	3	Grid reference
E		Frequency(ies)/channel(s) affected and other relevant details **(1)**
F		Duration (Date-Time Group (DTG) followed by duration in minutes) **(1)**
G		Assessment/description of incident **(1)**

NOTES:

(1) Repeat as necessary for each different unit/system/frequency/channel affected.

(2) "Stage of confirmation" from, as appropriate:

Code	Meaning
REAL	Confirmed
PLAN	Planned
ESTD	Estimated

704.23 – 704.99 Not allocated

WUSOP 705 AIR AND AVIATION OPERATIONS

705.01 Air Attack Warning (AIRATTACKWARN)

1. **Purpose**. Used to warn of imminent enemy air attacks against friendly forces. It may be used in conjunction with either Global Early Warning (GEW) or Local Early Warning (LEW) messages generated by automated AD systems:

A		Map Data: Map/Chart Series Map/Chart Suffix No **(1)** Map/Chart Sheet No **(1)** Map/Chart Edition No **(1)** Geodetic Datum
B		Effective Date-Time Group (DTG) of the early warning
C		Early Warning:
	1	Grid Ref of sighting
	2	Early warning bearing in Degrees True
	3	Verified count of aircraft **(2)**
	4	Aircraft generic category **(3)**
	5	Altitude (in feet) or as a general indicator **(4)**
	6	Aircraft speed (in kilometres per hour) or as a general indicator FAST/SLOW

NOTES:

(1) Repeat as necessary.

(2) Enter the count of aircraft (1-999) following by the verification indicator selected from:

Code	Meaning
C	Reference indicator certain
U	Reference indicator uncertain

NA	Reference indicator not available

(3) Selected from:

Code	**Meaning**
A	Attack
B	Bomber
C	Cargo/Transport
EW	Electronic Warfare
F	Fighter
FW	Fixed Wing, General
H	High
L	Low
M	Medium
VH	Very High
VL	Very Low
RF	Reconnaissance
LOH	Helicopter, Light Observation
AH	Helicopter, Armed/Assault/Anti-tank
UTTH	Helicopter, Utility Tactical Transport
MTH	Helicopter, Medium Transport
HTH	Helicopter, Heavy Transport

705.02 Air Request (AIRREQ)

1. **Purpose**. To request close air support for land or maritime ops:

		AIR REQUEST
		Air Request No ______
A		**Details of Task**. Destroy/neutralize/search. Target description. Location/search line details. Gives priority (if necessary). States if photo confirmation is required of recce.
B		**Time On Target** (TOT). A Specific Time, As Soon As Possible (ASAP), or a Not Later Than (NLT) time/latest time information of value
C		**Friendly Forces Location**. Where involved with or in close proximity (1000m) to the target location. **(1)** If no friendly forces within 1000m, NIL is to be specified. **(2)** This paragraph must always be completed
D		**Control Arrangement**, as applicable, from:
	1	Radar Control. C/S and frequency of initial control radar
	2	Radar Control. C/S and frequency of forward control radar
	3	TACP/ASOC. C/S and frequency
	4	TACP/ALO. C/S and frequency
	5	TACP/FAC. C/S and frequency
	6	Contact point/orbit point/initial point
	7	Marker(s). Indicator smoke, panel, etc.
E		**In-Flight Report**. C/S and frequency to whom in-flight report is to be made, if one is necessary
F		Not Used
G		Not Used
H		**Armament Requested** (or Not Used, as applicable)
I		**Any Other Information**

Notes:

(1) Preferably given in relation to an easily seen topographical feature. Failing this, given in relation to the target by bearing and distance or a grid reference.

(2) If not required, paragraph prefix letters be omitted, except in the case of "C", which always requires location reference(s) or a specific NIL.

705.03 Helicopter Landing Site Report (HELLSREP)

1. **Purpose**. To standardize the method used to transmit helicopter landing site (LS) reports. An example of a HELLSREP is provided at Annex A.

2. **Information Elements**:

a. **Message Name**: **HELLSREP**.

b. **Exercise Identification**. As appropriate. (Exercise ID and Op codewords are never to be used in the same message. If this element is used, it should contain the following information):

(1) **Exercise Nickname**. Alphanumeric entry for the codewords or nickname of the exercise to which the message pertains; and

(2) **Add Identifier**. If used, gives an add exercise nickname identifier using the appropriate data code, e.g. 'BLUE' to indicate that the message is between Blue players.

c. **Op Codewords**: As appropriate. See restriction above.

d. **Message Identifier (MSGID)**. Enter HELLSREP and details of originating unit, and other details about the message as necessary.

e. **Message/Report Ref**. If used, provides unique alphanumeric reference details, comms type in data code, and ref date-time.

f. **Date-Time**. Provides the effective DTG of message origin or authorized for release with hr given in the range 00 to 23.

g. **Landing Site Designator**. Code for the landing site.

h. **Maps**. Alphanumeric identification of all maps ref in the message, or ref to an agreed data set if in an automated GIS-based environment.

3. **Letter Designation**.

A: **Units of Measure**. (Defines the units of measure to be used throughout the HELLSREP taken from ATP-38 code designators as follows:

Code	Unit of Measurement
1	Metres
2	Yards
3	Feet
4	Degrees Magnetic
5	Mils
6	Kph
7	Mph
8	Knots

9	Degrees Celsius
10	Degrees Fahrenheit

B: **Effective DTG**. Provides the DTG in ZULU time on completion of the recce.

C: **Location**. Gives the UTM grid coord of the extremities of the LS. Prefixed by two letter grid zone designators when there is any possibility of uncertainty about the part of the map used.

D: **Orientation**. Gives the orientation of the Long Axis of the LS using the units of measurement listed at "A".

E: **Number/Size of LPs**. Provides the number and size of LPs being reported, with size given as follows:

Code	Meaning
1	Large
2	Medium
3	Small
4	As briefed

F: **Method of Deplanement**. Uses the following numerical code to describe the method of deplanement:

Code	Meaning
1	Land
2	Hover
3	Rope
4	Abseil or Winch

G: **Landing Site Surface**. Reports the LS surface conditions in 3 parts, as follows:

a. **Classification**, coded as:

Code	Meaning
W	Firm. can support the helicopter and can be used by 2 wheel drive vehicles or 4 wheel drive vehicles and trailers, unless heavy and continuous use is intended
X	Moderate. can be used by 3 or 4 ton vehicles which should be able to start from rest using 4 wheel drive
Y	Soft. 4 wheel drive vehicles cannot start from rest but might cross if already on the move

b. **Description**, coded as:

Code	Meaning
A	Sand
B	Grass
C	Scrub
D	Snow
E	Ice
F	Marsh
G	Dust
H	Any other surface

NOTE: It should be reported whether the surface will re-circulate, reporting Y for Yes and N for No. Re-circulation is the effect of the downwash of the helicopter that is liable to pick up sand, dust, or snow, and blow through the rotors thereby severely reducing the pilot's visibility.

H: **Direction**. Gives the direction of approach (1) and exit (2) for helicopters expressed in units of measure listed at "A".

NOTE: The direction of approach is not necessarily the same as the direction of landing, which will normally be decided by the helicopter pilot.

J: **Wind Details**. Reports wind direct and speed using units of measurement given at ALFA, with direct reported as the bearing from which the wind is coming.

K: **Approach Angle**. Provides details of the acceptable angle(s) of approach to the LS.

L: **Location/Recognition Aids**. Any location/recognition aids to be used must be pre-briefed and allocated a numerical code, for example: Number code 1 for green smoke and Number code 2 for yellow panels.

M: **Landing Aids**. Provides the allocated numerical code for any pre-briefed landing aids, for example: 1 for Inverted Y and 2 for T.

N: **Cloud Details**. Gives details of cloud cover and estimated height above the LS, with height estimated in the unit of measurement given in ALFA.

P: **Visibility/Temperature**. Reported using units of measurement given at ALPHA.

Q: **Enemy**. Provides details of known enemy positions, strength and weapons, reported as sighting no following by grid coordinate, strength and any weapons critical to the accomplishment of helicopter landings/deplanements. Enemy sightings will normally be amplified using a CONTACTREP.

R: **Position of Supported Unit** (if remaining adjacent to LS). This is sent in order to avoid it being mistaken for the en.

S: **Obstructions**. Obstructions in the direction of helicopter approach and exit are to be reported using the following letter code:

Code	Meaning
A	Buildings
B	Trees
C	Poles
D	Pylons and high tension wires
E	Others

NOTE. The sequence of this report is as follows: Grid reference, code letter, height in unit of measure given in ALFA. For example: S124568 B30.

T: **Vehicle Exits**. Reports UTM grid coordinates of all exit points for vehicle from the LS.

U: **Restrictions on Troop Movement**. Gives an indication of restrictions to rapid deployment of troops from the LS using the following numerical code:

Code	Meaning
1	Heavy restriction
2	Moderate
3	Unrestricted

V: **Remarks**. Allows for other pertinent information, such as a landmark to the LZ, to be described using GENTEXT as appropriate.

NOTES:

(1) Groups need not be signalled, when information is either not known, or not required. NC (no change) can be used to confirm information given in the reconnaissance briefing.

(2) Helicopters can easily be spoofed by the enemy unless pre-briefed recognition signals are used by personnel manning the landing site.

(3) When smoke is being used as a location aid for the helicopters the supported unit should indicate when the smoke is being released, but not the colour. The pilot of

the lead helicopter should, subject to EMCON restrictions, read back the colour seen and the supported unit confirms that the correct colour has been spotted.

(4) A wave off signal should be pre-briefed before the supported unit deploys in the event of the landing site being compromised immediately prior to the helicopter landing.

(5) Unless otherwise indicated at para ALFA the following standard units or measurement will be used:

a. metres (for dimensions in the horizontal plane);

b. feet (for height/vertical dimensions);

c. ° Magnetic;

d. knots; and

e. °C.

705.04 Helicopter Request (HELQUEST)

1. **Purpose**. Used to request helicopter support:

		HELQUEST identifier (unit ID (e.g. SIC)) and unique Helquest ID (i.e. date plus 3-digit serial number)
A		Number of Helicopters (and type, if not CH 146)
B		Nature of Task
C	1 2	Pick-up point(s) / RV Location **(1) (2)**
D	1 2	Destination(s)/reconnaissance target(s) etc. **(1)**
E	1 2	Date-Time Group (DTG) at Pick-up Points or On Task **(1)** etc.
F		'Not after' DTG at Pick-up Points or On Task
G		Estimated Duration of Task (in hrs/mins)
H		Total Number of Passengers/Casualties **(3)**
I		Cargo (Weight in kgs) **(4)**
J	1 2	C/S(s) and Frequencies(s) at Pick-up Points **(1)** etc.
K	1 2	C/S(s) and Frequencies(s) at Destination(s) **(1)** etc.
L		Briefing. C/S, Frequency, Location
M		Debriefing. C/S, Frequency, Location
N		Combat Intelligence Update.
O		Remarks/Special Instructions. e.g. liaison, logistic support **(5)**

NOTES:

(1) Repeat for multiple Pick-up Points/location.

(2) Pick-up Points may be Grids, nicknames or multiple location.

(3) Category. Sitting, stretcher, walking to be stipulated by numbers.

(4) Including description, dimensions, weight, underslung, etc.

(5) For complex ops, the system for matching passengers/load to helicopter types should be indicated here.

705.05 Immediate HELQUEST

1. **Purpose**. To request a helicopter on short notice.

		HELQUEST identifier (unit ID (e.g. SIC)) and unique request ID (e.g. date plus 3-digit serial number)
A		Description of task.
B		Time and duration.
C		Initial RV/location of task.
D		Control frequency and C/S.
E		Special instructions.
F		'Not after' DTG.
G		Duration of task (in hrs/mins).

705.06 HELQUEST Acknowledgement (HELACK)

1. **Purpose**. To inform a land unit or formation of the acceptance, delay or refusal of a request for helicopter support.

		HELQUEST identifier (unit ID (e.g. SIC) and unique request ID
A		Decision. ACCEPTED, REFUSED, or DELAYED until DTG **(1)**
B		Quantity and type of aircraft tasked
C		Aircraft C/S or Mission Number
D		Estimated DTG at Pick-up Point(s) **(2)**
E		Reason why REFUSED or DELAYED **(1)**
F		Additional information. Clearance, e.g. 'corridors', 'timeframe', etc, and any instructions not covered at A to D above.

Notes:

(1) The reason why REFUSED or DELAYED must be given at E.

(2) Repeated as necessary, D1, D2, D3, etc., for multiple Pick-up Points.

705.07 Helicopter Operational Summary (HELOPSUM)

1. **Purpose**. Used to submit daily Helicopter Operational Summary Reports.

		HELOPSUM. Provides summary details as at 0200hrs daily (to be submitted by 0400hrs daily) as follows:
A		Formation Title (e.g. 1 Wing)
B		Status of units (e.g. 400 THS, etc.) **(1)**
C		Operational summary: **(2)**
	1	A. Unit ID B. Unit location C. Main Operating Base (MOB)/FUEL **(3)** D. Forward Operating Base (FOB)/FUEL **(3)** E. Forward Arming and Refuelling Point (FARP)/FUEL **(3)** F. Aircraft (ac) Combat Ready (CR) **(4)** 1. ac Type 2. ac Type, etc G. ac Combat Available **(5)** 1. ac Type 2. ac Type, etc H. ac Unserviceable (U/S) **(6)** 1. ac Type 2. ac Type, etc I. % personnel CR J. 30mm **(7)** K. 70mm **(7)** L. HELLFIRE **(7)** M. Other Natures **(8)**
	2	A. Unit ID, etc
D		Significant Events. Last 24hrs **(9)**
E		Total Hours Flown by ac type:
	1	ac Type
	2	ac Type, etc
F		Summary of Current Operations
G		Areas of Concern **(10)**

Notes:

(1) Includes Attack Helicopters (AH) and Transport Helicopters (TH).

(2) Repeat as necessary for each unit being reported.

(3) Gives the location as a Grid and fuel holdings in m^3.

(4) Aircraft declared Combat Ready (CR) must have crew available.

(5) Aircraft declared Combat Available (CA) must have crew available but may have limited op capability.

(6) Gives the time in hours until aircraft are either CR or CA.

(7) By number of rounds.

(8) Further serials are added as required.

(9) Events influencing helicopter operations carried out, planned or anticipated.

(10) Problems or concerns that could adversely influence future operations.

705.08 Post Flight Report (PFREP)

Subject: PFREP

Ref(s): A. (Ensure that all applicable refs are listed)

1. **Dates(s) Flown and Number of Aircraft by type**.
2. **Msn number/Code**.
3. **Description of Task**. Be explicit. Include names of personnel/itinerary/additional pertinent information.
4. **Number of Pax**.
5. **Weight of Cargo**. If any peculiarities, explain in detail.
6. **Transit Time**.
7. **Time on Task**. Do not include transit time.
8. **Summary of Expenditures**. Only when HQ 1 Wing FE Code is used.
9. **Remarks**. Detail any problems encountered or recommendations. Include positive points as well.

   NOTE: The name of this report was changed from MISREP to PFREP, due to its Admin and not Int value.

705.09 Aircraft Status (ACSTAT)

1. **Purpose**. To report the unit aircraft status.

		ACSTAT
A		Number of serviceable aircraft by type.
B		NORM aircraft (serial number, reason for status, estimated date of return to svc status).
C		NORS aircraft by serial number.
D		If after 3 days IOR/AOG is still outstanding, the following additional information will be added:
	1	IOR/AOG Number and Date;
	2	Part Number or NATO Stock Number;
	3	Description of Item; and
	4	Change to status of IOR/AOG, such as date hastened, estimated delivery date, or anticipated delivery date.

705.10 Location/Deployment Report (LOCREP/ DEPLOYREP)

1. **Static. Location Report (LOCREP):**

		LOCREP
A	1	Location of Reporting HQ
	2	Contact Point of Reporting HQ
	3	Helicopter LZ of Reporting HQ
B		Location of Units
C		Location of observation post line and forward elements (only if not passed by trace)
D		Miscellaneous

2. **Mobile. Deployment Report (DEPLOYREP):**

		DEPLOYREP
A		Head of Leading Elms or Column
B		Location of Reporting HQ
C		Tail of Fighting Echelon Vehs or Pers
D		Loc of Administrative Echelon
E		Miscellaneous (e.g. ETA).

705.11 Aircraft Crash Report (CRASHREP)

1. **Purpose**. To report the details of a crashed aircraft.

		CRASHREP
A		Type of Aircraft
B		Nationality and Identifying Markings
C		Location of Crash
D		Time Discovered
E		Number of Persons Onboard
F		Number Killed/Injured
G		Other Information of Importance

705.12 FARP Report and FARP Mov O

1. **Purpose**. To report the location and duration of a FARP

		FARP Report and FARP Mov O
A		Location (e.g. Grid 351769)
B		Time Open (e.g. 1430Z) **(1)**
C		Time Closed (e.g. 1700Z) **(1)**
D		Approach From (e.g. 270 degrees);
E		C/Ss Authorized to Use
F		Other info, (if time permits):
	1	En Sit
	2	Weather
	3	Etc

NOTE: **(1)** Open and Close times will be strictly adhered to.

2. **Purpose**. To report the movement of a FARP.

		FARP MOV O
A		Location
B		Alternate Location
C		Time Open
D		Time Close
E		C/Ss Authorized to Use
F		Restrictions/Priorities

G		Other information (enemy situation, weather, etc).

705.13 Maintenance Repair Party Request (MRPREQ)

1. **Purpose**. To request an MRP.

		MRPREQ
A		Location of Aircraft
B		Aircraft Tail Number
C		Nature of U/S
D		Aircraft Parts Required
E		Special Tools Required
F		Can Aircraft Recover to Unit Location
G		Special Instructions/Information
H		Enemy Situation

705.14 Field Flight Plan

Field Flight Plan:

Ac____

CALL SIGN________________________ MSN # ____________

AIRCREW____

TAKE OFF TIME ___________________ DATE ______________

EST. Rtn____

SP____

TP 1____

TP 2____

TP 3____

TP 4____, etc

General
Plan:____
____

705.15 Delivery Point Request (DPREQ)

1. **DP Request**:

   a. the DP Request is used by a unit to obtain replenishment supply and combat supply items. It is routinely submitted, usually within a specified time period or at a fixed time; and

   b. all units will normally be assigned to specific DPs, with the first named unit given the responsibility for DP siting.

FORMAT	EXAMPLE
DP REQ NO __	DP REQ NO 2
a. Primary DP location.	a. GR 123456.
b. Contact Pt for Primary DP.	b. GR 125462.
c. Altn DP location.	c. GR 152645.
d. Contact Pt for Altn DP.	d. GR 154637.
e. Desired Time of Opening.	e. 240100Z.
f. Suitability of location for Air Resupply.	f. Primary -Yes. Altn –No.
g. Recommended Ground Approach Route.	g. Approach primary from South.
h. Other Remarks.	h. Bring 5,000 lb pendant.

705.16 Area Damage Report (ADR)

1. **Purpose**. An Area Damage Report (ADR) describes damage to log installations, stocks and communications that may have a significant effect on future support capabilities. It is submitted by CSS units or sub-units, but may be used by unit echelon should the need arise. This report will normally be preceded by a contact report when the incident took place and is therefore of prime importance to admin staffs and unit QM. Any further details on enemy action will be required by the G3 staff at unit or fmn level. Report will be in the following formats:

   a. initially within five hrs of the incident with as much information as is available;

   b. follow-up reports as full actual info is available; and

   c. final report on completion of investigation.

   d. the ADR will normally be classified SECRET.

AREA DAMAGE REPORT		
UNIT REPORTING:		
SUBUNIT:		
AS AT DTG:		
1. REPORT NO:		INITIAL/FOLLOW UP/FINAL
2. TYPE OF INCIDENT:		
3. DTG OF OCCURRENCE:		
NOTES: 1. REPORT NUMBER TO REMAIN THE SAME FOR FOLLOW UP AND FINAL REPORTS. 2. DUE WITHIN FIVE HOURS OF INCIDENT. FOLLOW-UP REPORT AS REQUIRED. 3. SUBMIT FINAL REPORT.		

705.17 Transport Request (TPTREQ)

1. **Purpose**. The Transport Request is used to request additional road transport beyond unit or sub-unit resources for a particular op or task.

FORMAT	EXAMPLE
TPTREQ	**TPTREQ**
a. Unit Req Tpt	a. 1 RCR
b. Load	b. 150 pers, 2,000 lbs cargo
c. Date/Time Requested	c. 220800Z Jun
d. Initial RV	d. GR 123456
e. Contact at RV	e. OC A Coy
f. Destination	f. GR 682927
g. ETC	g. 221200Z Jun
h. Purpose	h. Mov unit and eqpt to new loc to begin ops.
i. Remarks. Details of cargo must be sufficient to ensure that the appropriate vehicles and ld/unld facilities are provided.	i. Cargo, including pallets. RTFL aval at initial RV and destination.

705.18 Notice Of Crash Location Message (NOCL)

A	Positive		Positive identification of the crash site as the object of the search
	Negative		Inability to determine positively that the crash site sighted is the object of the search.
B	"NNNN WWWW"		An eight or nine-digit latitude/longitude group, without the use of North or West.
C	Negative **(1)**		No survivors or casualties can be seen.
	Number **(1)**		Indication of the number of survivors or casualties actually seen.
	Undetermined		Status of the survivors or casualties cannot be determined.
D	1	"North"	Indicates the side of the hill, plus an indication of the North, South, East or West side of the hill.
	2	"West"	Indicates a valley, plus indication of the North, South, East or West side of the valley floor.
	3		Indicates level country.
	4		Indicates heavily wooded areas (can be used in conjunction with one, two or three).
D	5		Indicates in water:
		a	a. Indicates near shore; or
		b	b. Indicates well offshore.
E	1		Request for authorization to deploy a SAR TECH team.
	2		Requirement for a Helicopter.
	3		Possible for ground party to reach location in good time;
	4		Requirement for a rescue boat.
	5		Request Coroner.
F	Remarks		Care should be taken that any remark in this paragraph does not compromise the security of the message.

NOTE: (1) Information on the medical condition of the victims should only be transmitted after investigation by a SAR TECH or other medically trained personnel as follows:

"Red"	Requirement for immediate treatment and evacuation – Priority 1;
"Yellow"	Early treatment and evacuation – Priority 2;
"Green"	Routine treatment and evacuation – Priority 3;
"Blue"	Deferred treatment and evacuation – Priority 4;
"White"	Survivor(s) uninjured;
"Grey"	Victim(s) missing; or
"Black"	Victim(s) dead.

705.19 Isolated Personnel Report (ISOPREP)

1. **Preparation**. An Isolated Personnel Report (ISOPREP) contains information, which is used to verify the identity of downed aircrew, in a threat environment for search and rescue purposes. All aircrew, and any personnel who accompany them, must have a completed ISOPREP on file prior to flying their first mission into a hostile area. In the event of the downing or crash of an aircraft, the agency responsible for providing Combat Search and Rescue (CSAR) capabilities will be immediately informed of the event by telephone. A copy of the ISOPREP(s) and the crew's Evasion Plan of Action (EPA) will then be sent to the CSAR agency. The Intelligence Section will normally be responsible for holding ISOPREPs on file. An example of an ISOPREP is detailed at Annex B.

2. An ISOPREP contains the following information:

a. surname, first name, middle initial

b. service number;

c. rank;

d. element (e.g. Canadian Air Force);

e. nationality;

f. birth date (YY/MM/DD);

g. obvious marks (scars or other distinguishing features, noting size and location);

h. blood group;

i. height in feet and inches;

j. colour of eyes;

k. colour of hair;

l. date the form was filled out (YY/MM/DD);

m. wing/unit;

n. four-digit number than can be easily recalled (do not use birth date, last four digits of service number or numbers in a pattern such as 1,2,3,4);

o. signature;

p. four personal authentication statements;

q. two photos (one front and one profile); and

r. finger prints.

705.20 Airspace Control Order (ACO)

1. **Purpose**. To provide specific orders for airspace management from a higher command to subordinate units.

A		Airspace Control Means
B		Airspace Control Agency Designator
C		Horizontal Dimension. Area bounded by locations given as Grid Refs or GEO Refs
D		Vertical Dimension. Given as actual heights or pre-determined bands (in metres)
E		Published Transit Route Details:
	1	Points - FROM/TO Grids Timings - FROM/TO Date-Time Groups (DTGs)
	2	Points - **(1)** Timings - **(1)**
F		Period. ACO duration given as START/END DTGs (times only for daily cyclic repetitions)
G		Effective DTG. Specifies the start of a repeated cycle
H		Controlling Authority
Note: **(1)** Repeatable as necessary.		

705.21 Identification Friend Or Foe (IFFPROC)

1. **Purpose**. Used to exchange Identification Friend or Foe (IFF) information and coordinate the Air Defence (AD) coverage over a specific area for a given time period.

A		Unit ID of the Short Range AD (SHORAD) IFF Originating Authority
B		IFF areas:
	1	Present **(1)**
	2	Planned **(1)**
C		Timings:
	1	Present IFF area FROM/TO Date-Time Groups (DTG)
	2	Planned IFF area FROM/TO DTGs
D		IFF MODE. Specific MODE Selected
E		Combined IFF MODE Selected
F		IFF Code. Specific Code Selected
G		Cancelled IFF MODE(s)
H		Cancelled IFF Code(s)
Note: **(1)** IFF areas present and planned are defined using as many as necessary Grid Refs/GEO Refs, whichever is more appropriate.		

705.22 – 705.99 Not allocated

WUSOP 706 ADMINISTRATION REPORTS AND RETURNS FORMATS

SECTION 1 - LOGISTICS AND CSS

706.01 Logistics Situation Report (Unit) (LOGSITUNIT)

1. **Purpose**. Used to advise on changes to holdings of equipment, ammunition, fuel (petrol, oil, lubricants (POL)) and rations at unit level:

A		**LOGSITUNIT** Reference Number
B		Force weapons:
	1	Code/stock number **(1) (2)** Holdings
	2	Code/stock number **(1) (2)** Holdings
C		Ammunition:
	1	Code/stock number **(1) (2) (3)** Holdings
	2	Code/stock number **(1) (2) (3)** Holdings
D		Petroleum products:
	1	Code/stock number **(1) (2) (4)** Holdings
	2	Code/stock number **(1) (2) (4)** Holdings
E		Rations:
	1	Code/stock number **(1) (2) (4)** Holdings
	2	Code/stock number **(1) (2) (4)** Holdings
F		Add information (as necessary for amplification)

NOTES:

(1) Repeated as necessary where more than one item is being reported.

(2) Using appropriate codes from the Land Forces Reportable Item List (LFRIL).

(3) Holdings to be reported if over 5% used since the last LOGSITUNIT.

(4) Holdings to be reported if stocks vary over 5% since the last LOGSITUNIT

706.02 Map Request (MAPREQ)

1. **Purpose**. Used for submitting requests for map coverage:

		Latest Date-Time Group (DTG) required
A	1	Map details **(1)** Series Sheet Number Quantity
B	2 3	Map details **(1)** etc, Map details **(1)** etc,
C		Reason for demand
D		Collection/delivery details
E		Point of contact (POC) details

NOTE:

(1) Repeat as necessary where more than one map series/sheet no is requirement

706.03 Material Demand (MATDEM)

1. **Purpose**. Used for demanding specific items or material:

A		Demand Reference Number
B	1 2	Item requested: **(1)** Class of supply Code/stock number **(2)** Relevant reference document Equipment/materiel name Unit of measure (as applicable) Quantity required Stocks on hand Item requested: **(1)**
C	1 2	Delivery criteria: Coded priority Latest target Date-Time Group (DTG) for delivery Location Method of delivery by whom, supply or collection Delivery criteria: **(1)**
D	1 2	Impact of non-compliance. If supply is not possible by the latest target date for delivery/collection **(1)** Impact of non-compliance **(1)**

NOTES: **(1)** Repeat as necessary where more than one item is required; and **(2)** Using appropriate codes from the Land Forces Reportable Item List (LFRIL).

SECTION 2 – FORCE MOVEMENT

706.04 Movement Situation Report (MOVSITREP)

1. **Purpose**. Used to report the movement and movement infrastructure situation, together with detail of remedial action initiated or planned to overcome deficiencies experienced or anticipated:

A		Summary description of the overall movements situation, operational and logistic, to cover:
	1	Roads
	2	Railways
	3	Inland Waterways
	4	Maritime
	5	Air
	6	Movement Comms Systems
B		Summary information for each of the following factors, particularly where they have an impact on reduction in capacity/efficiency of movement networks, installations or facilities (NO CHANGE should be reported where there are no remarks to make for a particular factor):
	1	Road Networks
	2	Rail Networks
	3	Inland Waterways and Ports
	4	Maritime Waterways, Ports and Beaches
	5	Airports/Airheads
	6	Movements Communications Systems
C		Remedial Action – summarizes, action to remedy the deficiencies, problems, concerns and shortfalls identified at item BRAVO:
	1	Action
	2	Progress
D		Assessment of the course of movement according to schedule **(1)**
E		Impact on forecast movements to cover:
	1	Arrivals
	2	Internal Moves
	3	Departures

NOTE:

(1) The assessment should use the following standard codes in combination:

Code	Meaning
I	Operational movements
II	Logistical movements
A	Traffic situation fully ensures movement operations
B	Traffic situation limits movement operations such that planned movement times increase by up to 100%
C	Traffic situation limits movement operations such that planned movement times increase by more than 100%
D	Traffic situation can no longer ensure movement operations.

SECTION 3 – FORCE MAINTENANCE

706.05 Repair/Recovery Request (REPRECREQ)

1. **Purpose**. To demand equipment repair or recovery facilities beyond the capability of the unit maintenance organization. The demand (request) should be forwarded to the Formation Svcs Bn HQ or DTSG Maint Coy as applicable by the fastest possible means. Requests will be sequentially numbered by the Svcs Bn/DTSG Maint Coy.

2. **Format**:

   a. REPAIR/RECOVERY NUMBER (demanding unit must identify either repair or recovery);

   b. identity of unit requesting support;

   c. type and make of equipment;

   d. estimated condition class (x/y/z/br/unknown);

   e. can equipment be moved by direct tow, suspended tow, under own power, or other (non vehicle casualties);

   f. location of casualty or RV;

   g. assistance requirement (including heavy lift);

   h. local tactical situation; and

   i. has the crew remained with the equipment.

3. **Acceptance details from receiving HQ**:

   a. Repair/recovery request number;

   b. C/S of Mobile Repair Team (MRT);

   c. estimated time of arrival of MRT at RV location;

   d. estimated time of completion; and

   e. remarks.

706.06 Gun and AFV State (ENCODED)

"GUN AND AFV STATE AS AT (DATE, TIME GROUP)"

1. Equipment Covered:
    a. guns, including all artillery pieces, mortars, and heavy anti-armour weapons; and
    b. AFVs including all armoured track/wheeled vehicles. Soft-skinned vehicles will not be reported unless losses in certain type are critical to operational effectiveness.
2. Type of Casualty:
    a. S - Serviceable;
    b. X - Requires repair up to unit capacity;
    c. Y - Requires repair up to the capacity of second and third line workshops;
    d. Z - Requires repair up to the capacity of base workshops; and
    e. BR - Beyond economical repair. (This designation is normally used by technical trades).
3. Example:

"GUN & AFV STATE AS OF 032359Z

1. BCB, S20, Z1.

2. BDB, S12, X1, Y1, Z1".

706.07 - 706.99 Not allocated

EXAMPLE OF A HELICOPTER LANDING SITE REPORT (HELLSREP)

Meaning **(a)**		**Encode** **(b)**
Information Element. Message name, Exercise/OP identification, Message identifier, Date-Time, Landing Site designator (as an example: OAK 3), and Maps (as an example: map series M722 Sheet 26)		HELLSREP OP CALUMET 1 Wing HQ Ops 002 020220Z Feb 00 OAK 3 M722.26
A	Units of measurement if different from those at Note 5 of WUSOP 705.03	A. NIL.
B	Reconnaissance completed 0530Z on 18 Feb 00.	B.180530Z. Feb 00.
C	Location of the 4 extremities of the LS are: Grid reference 876318, 877317, 872315, 871316.	C. 876381, 877317, 872315, 871316.
D	Long axis of LS is orientated 230°M/050°M.	D. 230/050.
E	There is room for 3 x Size 4 Rectangular LPs and 1 x Size 2 LP.	E. 3 x Size 4 Rect/1 x Size 2.
F	The surface of the LPs will allow the helicopters to land to deplane troops.	F. 1.
G	Surface of the LS is firm (it can support the helicopter) and consists of sandy soil which is dry enough to be blown up by the helicopter.	G. WAY.
H	After considering long axis, wind direction and strength, obstructions, and enemy positions, the recommended approach direction is 200° M magnetic and the exit direction is 260° M.	H.1. 200, 2. 260.
J	Wind is blowing from 200° M; strength is 30 knots.	J. 200/30.
K	Obstacles on recommended approach path dictate a minimum approach angle of 4°.	K. 4°.
L	Of the briefed location and recognition aids carried by the supported unit which were allocated code numbers: Radio Beacon 1 Strobe Beacon 2 Red Panels 3 (Only the strobe and red panel have been deployed).	L. 2,3.

	Meaning (a)	Encode (b)
M	Of the briefed landing aids carried by the supported unit which were allocated the code numbers: Torch T 1 AAI 2 White marker lights 3 (Only the Torch T and the AAI have been deployed).	M. 1, 2.
N	The sky is half covered by cloud (4/8ths) which is estimated as being 600 ft above the LS.	N.4. 600.
P	Visibility is 5 km, temperature minus 2^{o}C.	P. 5000 minus 2.
Q	Enemy have been observed in three locations as follows: approx. 100 men with two anti-tank guns at grid reference 856331, approx. 80 men at 840275, and three tanks at 863325.	Q.1. 856331.100, two anti-tank guns 2. 840275. 80. 3. 863325. Three tanks
R	As elements of the supported unit are remaining close to the LS their position is reported as grid reference 877316.	R. 877316.
S	A set of pylons and high tension wires 90 ft high cross the approach, 1 km away. There are also some trees 45 ft high ½ km away.	S. 879328D90. 878318B45.
T	Clear exits for vehicles are grid reference 872315 and 876318.	T. 872315.876318.
U	The terrain will tend to restrict the movement of troops from the LS.	U.2.
V	The supported unit reports that a bald hill at grid reference 886316 is a landmark to the landing zone.	V. Bald Hill 886316

ISOPREP FORMAT

CONFIDENTIAL *(WHEN FILLED IN)*

ISOLATED PERSONNEL REPORT *(ISOPREP)*	**1. NAME *(Last, First, Middle Initials)***		**2. SN**
CLASSIFIED BY: **DECLASSIFY ON:**	**INSTRUCTIONS** **Items 1 through 15 and 20 through 23 are to be completed by Applicant.** **Items 16 through 19 and Item 24 are to be completed by RCC Personnel.** **All items are to be filled in INK; however, use a PENCIL for items, 3, 13, 14 and 20 through 24.**		**3. RANK/GRADE**
4. BRANCH OF SERVICE	**5. NATIONALITY**	**6. DATE OF BIRTH *(YYMMDD)***	**7. OBVIOUS MARKS *(Scar, Birthmark, Mole)***
5. BLOOD GROUP	**9. HEIGHT**	**10. COLOUR OF EYES**	**11. COLOUR OF HAIR**
12. DATE PREPARED *(YYMMDD)*	**13. DATE REVIEWED *(YYMMDD)***	**14. AUTHENTICATOR NO.**	
		15. SIGNATURE	
16. DATE MISSING *(YYMMDD)*	**17. LOSS POSITION**	**18. PRIORITY** **YES** **NO**	**19. SPARE**
FOLD HERE			

PERSONAL AUTHENTICATION STATEMENT	
20.	**21.**
22.	**23.**
24. ADDITIONAL DATA	

ISOPREP FORM (FRONT)
CONFIDENTAL *(WHEN FILLED IN)*

CONFIDENTIAL *(WHEN FILLED IN)*

PRINCIPAL PURPOSE(S): It is essential to the Combat Search and Rescue effort for the protection of the Search and Rescue Forces from enemy entrapment. The CF Service number is used to ensure positive identification.

ROUTINE USE(S): It will be completed by each aircrew member who may be subject to action in or over hostile territory. It contains personal information that may be used to ensure positive identification. After the aircrew member has completed the form it will be classified as "CONFIDENTIAL".

DISCLOSURE IS VOLUNTARY: The information is necessary since it affects the entire Search and Rescue mission.

LEFT HAND	CODE	PRINT CODE	CODE	RIGHT HAND
1. LITTLE FINGER		Arch KK Tented Arch LL Finger Loop MM Thump Loop NN		10. LITTLE FINGER
2. RING		Whorl OO Finger Missing PP Finger Mutilated QQ Question/Uncertain YY		9. RING
		FOLD HERE		

3. MIDDLE		**PHOTOGRAPH** *(Front View)*		**8. MIDDLE**
4. INDEX		**PHOTOGRAPH** *(Profile View)*		**7. INDEX**
5. THUMB				**6. THUMB**

ISOPREP FORM (REVERSE)
CONFIDENTAL ***(WHEN FILLED IN)***

ABBREVIATIONS AND ACRONYMS

A	AA	Assembly Area
	AAA	Anti-Aircraft Artillery
	AAR	After Action Report
	AAAD	All-Arms Air Defence
	AAH	Anti-Armour Helicopter
	AAM	Air to Air Missile
	ABCCC	Airborne Command, Control and Communications
	ABCA	America, Britain, Canada and Australia
	ABDR	Aircraft Battle Damage Repair
	AC	Aircraft Captain/Aircraft Commander
	ac	Aircraft
	ACA	Airspace Control Authority
	ACC	Air Component Commander
	ACL	Allowable Cabin/Cargo Load
	ACM	Airspace Control Measures
	ACO	Airspace Control Order
	ACP	Air Control Point
	ACS	Airspace Control System
	ACSTAT	Aircraft Status
	AD	Air Defence
	ADC	Air Defence Commander
	ADA	Air Defence Artillery
	ADTB	Army Doctrine Tactics Board
	AFC	Airmobile Force Commander
	AFV	Armoured Fighting Vehicle
	AGM	Air to Ground Missile
	AGL	Above Ground Level
	AH	Attack Helicopter
	AI	Area of Interest
	AIF	Aircrew Information File
	ALO	Air Liaison Officer
	AMC	Aviation Mission Commander
	AMO	Aircraft Maintenance Organization
	AMS	Avionics Management System
	AO	Area of Operations
	AOP	Air Observation Post
	AOC	Area Operations Centre
	AOCC	Air Operations Coordination Centre
	ARH	Armed Reconnaissance Helicopter
	ASAP	As Soon As Possible
	ASE	Aircraft Survivability Equipment
	ASOC	Air Support Operations Centre
	ASC	Airspace Control
	AT	Anti-Tank

	ATC	Air Traffic Control
	ATGM	Anti-Tank Guided Missile
	ATO	Air Tasking Order
	AUC	Aviation Unit Commander
	AUW	All-Up Weight
	AWACS	Airborne Warning And Control System
B	BC	Battery Captain
	BDR	Battle Damage Repair
	BDZ	Base Defence Zone
	BP	Battle Position
	BSA	Brigade Support Area
C	C2	Command and Control
	CAM	Chemical Agent Monitor
	CAS	Close Air Support
	CATO	Concealed Approach and Take Off
	CEOI	Communications Electronic Operating Instructions
	CIMIC	Civil-Military Cooperation
	CFSA	Corps Forward Support Area
	CL	Coordination Level
	CLA	Creeping Line Ahead
	C&L	Command and Liaison
	CMDS	Counter Measures Dispenser System
	CO	Commanding Officer
	COMD	Commander
	COMJAM	Communications Jamming
	COMSEC	Communications Security
	COSCOM	Corps Support Command
	CP	Command Post
	CRSA	Corps Rear Support Area
	CS	Close Support
	C/S	Call Sign
	CSA	Corps Support Area
	CSAR	Combat Search and Rescue
	CSS	Combat Service Support
	C2	Command and Control
	C3	Command, Control & Communications
D	D/AMC	Deputy Aviation Mission Commander
	DC	Dangerous Cargo
	DCO	Deputy Commanding Officer
	DEWS	Defensive Early Warning Suite
	DF	Direction Finding
	DISGP	Division Service Group
	DME	Distance Measuring Equipment

	D/Ops O	Deputy Operations Officer
	DP	Delivery Point
	DS	Direct Support
	DSA	Divisional Support Area
	DTC	Data Transfer Cartridge
	DTG	Date-Time Group
E	EA	Engagement Area
	E&E	Escape And Evasion
	ECM	Electronic Countermeasures
	ECCM	Electronic Counter-Countermeasures
	EIS	Equipment Issue Scale
	ELINT	Electronic Intelligence
	ELT	Emergency Locator Transmitter
	EMCON	Emission Control
	EO	Electro-Optical
	EP	Electronic Protection
	EPM	Electronic Protective Measures
	ERSTA	Electro-optical Reconnaissance Surveillance and Target Acquisition
	ES	Electronic Support
	ESM	Electronic Support Measures
	ETA	Estimated Time of Arrival
	ETO	Employment Training Office
	ETR	Estimated Time Of Return
	EW	Electronic Warfare
	EWO	Electronic Warfare Officer
F	FAA	Forward Assembly Area
	FAADS	Forward Area Air Defence System
	FAC	Forward Air Controller
	FARE	Forward Area Refuelling Equipment
	FARP	Forward Arming and Refuelling Point
	FC	Fire Coordinator
	FCA	Fire Coordination Area
	FCO	Fire Control Order
	FCM	Fire Control Measures
	FE	Flight Engineer
	FEBA	Forward Edge of the Battle Area
	FFA	Free Fire Area
	FFE	Fire For Effect
	FLET	Forward Line Enemy Troops
	FLIR	Forward Looking Infra-Red
	FLOT	Forward Line of Own Troops
	FOB	Forward Operating Base
	FOO	Forward Observation Officer
	FRAG O	Fragmentation Order

	FS	Fire Support
	FSCC	Fire Support Coordination Centre
	FSCL	Fire Support Coordination Line
	FSE	Fire Support Element
	FSO	Fire Support Officer
G	GMT	Greenwich Mean Time
	GPS	Global Positioning System
	GPMG	General Purpose Machine Gun
	GS	General Support
H	HA	Holding Area
	HAZMAT	Hazardous Material
	HCCR	Hot Closed Circuit Refuelling
	HELACK	Acknowledgement to Helicopter Request Message
	HELLSREP	Helicopter Landing Site Report
	HELQUEST	Helicopter Request Message
	HELTASK	Helicopter Tasking Message
	HF	High Frequency
	HIDACZ	High Density Airspace Control Zone
	HLVW	Heavy Logistics Vehicle Wheeled
	HLH	Heavy Lift Helicopter
	HLS	Helicopter Landing Site
	HTH	Heavy Transport Helicopter
	HUD	Head-Up Display
	HUMINT	Human Intelligence
	HVQK	Have Quick (frequency modulation)
I	IAS	Indicated Air Speed
	IFF	Identification Friend or Foe
	IFR	Instrument Flight Rules
	IFV	Infantry Fighting Vehicle
	IGE	In Ground Effect
	IMC	Instrument Meteorological Conditions
	INTREP	Intelligence Report
	IO	Intelligence Officer
	IOR	Immediate Operational Requirement
	Info Ops	Information Operations
	IP	Initial Point
	IPB	Intelligence Preparation of the Battlefield
	IR	Infra-Red
	IRSS	Infra-Red Suppression System
	ISB	Initial Staging Base
	ISOPREP	Isolated Personnel Report
	ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance

J	JAAT	Joint Air Attack Team
	JC2IS	Joint Command and Control Information System
	JFACC	Joint Force Air Component Commander
	JFC	Joint Force Commander
	JSEAD	Joint Suppression of Enemy Air Defences
	JTF	Joint Task Force
K	KIA	Killed In Action
	KIAS	Knots Indicated Air Speed
L	LD	Line of Departure
	LDO	Laser Designator Operator
	LEP	Light External Pintle
	LLAD	Low Level Air Defence
	LLR	Low Level Radiation
	LLTR	Low Level Transit Route
	LO	Liaison Officer
	LOC	Lines of Communications
	LOCREP	Location Report
	LP	Landing Point
	LPH	Light Pintle Head
	LRSU	Long Range Surveillance Units
	LS	Landing Site
	LSVW	Light Support Vehicle Wheeled
	LTL	Laser to Target Line
	LUC	Lifted Unit Commander
	LZ	Landing Zone
M	MAWS	Missile Approach Warning System
	MANPADS	Man Portable Air Defence System
	MBT	Main Battle Tank
	MCL	Maximum Combat Load
	MEZ	Missile Engagement Zone
	MIA	Missing In Action
	MLH	Medium Lift Helicopter
	MLRS	Multiple Launch Rocket System
	MLVW	Medium Logistics Vehicle Wheeled
	MOPP	Mission Oriented Protective Posture
	MPS	Mission Planning Station
	MRAAM	Medium Range Anti-Armour Missile
	MRAAW	Medium Range Anti-Armour Weapon
	MRP	Mobile Repair Party
	MRT	Mobile Repair Team
	MSO	Maintenance Support Officer
	MSR	Main Supply Routes
	MTH	Medium Transport Helicopter

N	NAI	Named Areas of Interest
	NBC	Nuclear, Biological, Chemical
	NEO	Non-combatant Evacuation Operation
	NFA	No-Fire Area
	NFL	No-Fire Line
	NOCL	Notice Of Crash Location
	NOE	Nap of the Earth
	NOK	Next Of Kin
	NORDO	No Radio
	NVD	Night Vision Device
	NVG(s)	Night Vision Goggle(s)
O	OGE	Out of Ground Effect
	OIC	Officer In Charge
	OOTW	Operations Other Than War
	OP	Observation Post
	OPCOM	Operational Command
	OPCON	Operational Control
	Op O	Operations Order
	Ops O	Operations Officer
	OSC	On-Scene Commander
P	PA	Public Affairs
	PFREP	Post Flight Report
	PGM	Precision Guided Munition
	PIR	Priority Intelligence Requirement
	PL	Phase Line
	PLB	Personal Locator Beacon
	POC	Point(s) of Contact
	POL	Petrol, Oil and Lubricants
	PSO	Peace Support Operations
	PUP	Pull Up Point
	PZ	Pick-up Zone
Q	QRF	Quick Reaction Force
R	RAH	Reconnaissance Attack Helicopter
	RAS	Rear Area Security
	RCC	Rescue Coordination Centre
	RES	Radiation Exposure State
	RFL	Restrictive Fire Line
	RLWR	Radar Laser Warning Receiver
	ROA	Restricted Operations Area
	ROE	Rules of Engagement
	RON	Remain Over Night

	ROTA	Release Other Than Attack
	ROZ	Restricted Operations Zone
	RP	Replenishment Point/ Release Point
	RPV	Remotely Piloted Vehicle
	RRB	Relay Rebroadcast Station
	RSDL	Reactive Skin Decontamination Lotion
	RSO	Range Safety Officer
	RT	Radio Telecommunications
	RTB	Return To Base
	RV	Rendezvous
	RLWR	Radar Laser Warning Receiver
S	SA	Safety Assistant
	SAAFR	Standard use Army Aircraft Flight Route
	SAM	Surface to Air Missile
	SAR	Search and Rescue
	SC	Special Corridor
	SDS	Signal Dispatch Service
	SEAD	Suppression of Enemy Air Defences
	SHORAD	Short Range Air Defence
	SIC	Subject Indicator Code
	SIF	Selective Identification Feature
	Sig(s)	Signals (noun), Signal (adjective)
	SIGINT	Signals Intelligence
	SMM	Standard Manoeuvre Manual
	SOI	Signal Operating Instructions (see also CEOI)
	SOP(s)	Standard Operating Procedure(s)
	SP	Start Point
	SPINS	Special Instructions
	STANAG	Standardization Agreement (NATO)
T	TA	Target Acquisition
	TACAIR	Tactical Air Support
	TAC CP	Tactical Command Post
	TACOM	Tactical Command
	TACON	Tactical Control
	TACP	Tactical Air Control Party
	TAI	Target Areas of Interest
	TAMS	Tactical Air Movement Section
	TC	Transit Corridor/ Traffic Control
	TH	Transport Helicopter
	TI	Thermal Imagery
	TIB	Toxic, Industrial, Biological
	TIC	Toxic, Industrial, Chemical
	TMRR	Temporary Minimum Risk Route
	T/O	Take-Off

	TO&E	Tables of Organization and Equipment
	TOT	Time On Target/ Time On Task
	TOW	Tube-launched Optically-tracked Wire-Guided
	TP	Traffic Post
	TR	Transit Route
	TTPs	Tactics, Techniques and Procedures
	TUA	TOW Under Armour
U	UAV	Unmanned Aerial Vehicles
	UFSO	Unit Flight Safety Officer
	UH	Utility Helicopter
	UMS	Unit Medical Station
	UTTH	Utility Tactical Transport Helicopter
	UXO	Unexploded Ordnance
V	VNE	Velocity Not to Exceed
	VTOL	Vertical Take-Off and Landing
W	WCO	Weapon(s) Control Order
	WCS	Weapons Control Status
	WFZ	Weapons Free Zone
	WIA	Wounded In Action
	WP	White Phosphorus (Arty)/ Water Point (CSS)